



Australian Government

**Rural Industries Research and
Development Corporation**

Rural Industry Adjustment to Trade Related Policy Reform

A report for the Rural Industries Research and Development Corporation

by David Harris

December 2005

RIRDC Publication No 05/173
RIRDC Project No DAH-1A

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ISBN 1 74151 236 0
ISSN 1440-6845

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Published in December 2005
Printed on environmentally friendly paper by Canprint

Foreword

The domestic impact of agricultural policy reform is an important issue for many countries. Governments are often reluctant to reduce support for highly protected industries because of concerns about the ability of farmers to adjust to the change in market conditions. There are concerns the reduction in support may lead to a long term industry contraction.

This report investigates some Australian experiences of industry adjustment to policy reform. Four industry case studies are examined – dairy, citrus fruit, pig meat and rock lobsters. Each case study involved a different type of policy change. The three agricultural industries have experienced adjustment pressures from trade related policy reforms. The rock lobster industry has adjusted to the removal of open access rights to a naturally occurring resource.

While recognising there is a social aspect to the effects of reform this report focuses on the economic changes that occurred. In each case producers adapted to the new market conditions and the impact of the reform was not as severe as initially feared. Some producers chose to exit the industry for new vocations and some elected to diversify into alternative income earning activities. Most producers remained in the affected industry and successfully made changes to improve their financial position.

In recent times some overseas policy reforms have used long term income support to off-set the impact on farm returns. This report suggests that short term transitional assistance is a better way to manage the adjustment pressures from policy reform. The general approach used in these Australian case studies should interest policy advisers in other countries facing similar situations in the context of WTO trade negotiations.

One case study involved farmer adjustment to deregulation of the Australian dairy market. This reform involved the overnight removal of all price support mechanisms in conjunction with transitional assistance worth A\$2 billion. A detailed discussion of the dairy case study was recently published in a separate RIRDC report, *Industry adjustment to policy reform – A case study of the Australian dairy industry* (Pub. No. 05/110).

The project is funded from RIRDC core funds which are provided by the Australian Government. Two other organisations contributed to the cost of the project. *Dairy Australia* provided support for the preparation of the dairy case study. The *Australian Centre for International Agricultural Research* (ACIAR) also contributed to the cost of the project.

This report is an addition to RIRDC's diverse range of over 1500 research publications. It forms part of our Global Competitiveness R&D sub-program. This program aims to identify impediments to the development of a globally competitive Australian agricultural sector. It supports research that will lead to options and strategies that will remove these impediments.

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Acknowledgements

The preparation of this report involved the assistance of several individuals who provided statistical information and valuable advice on each of the four case studies. The contributions of Chris Phillips from *Dairy Australia*, Charles McElhorne from *Australian Pork Limited* and Andrew Thompson from the *Australian Citrus Growers Inc.* are gratefully acknowledged.

Julian Morison from *EconSearch Pty Ltd* provided considerable assistance in the preparation of the case study on the South Australian Southern Zone rock lobster industry. During the course of the preparation of this report the advice and comments provided by Alistair Watson were greatly appreciated. The comments provided by other reviewers during the course of the project also made a valuable contribution to the final report.

Financial support provided by the *Rural Industries Research and Development Corporation* (RIRDC), *Dairy Australia* (DA) and the *Australian Centre for International Agricultural Research* (ACIAR) is gratefully acknowledged. The support, encouragement and advice of Jeff Davis (RIRDC), Ray Trewin (ACIAR) and Steve Coats (DA) in undertaking this project was greatly appreciated.

Contents

| | |
|--|------|
| Foreword | iii |
| Acknowledgements | iiv |
| Executive summary | viii |
| Adjustment to policy reform | ix |
| Adjustment to policy reform in Australia | x |
| Transitional assistance for policy reform | xi |
| | |
| 1. Introduction | 1 |
| Agricultural support in OECD countries | 1 |
| Resistance to trade related policy reform | 2 |
| The benefits of policy reform | 2 |
| Transitional assistance for policy reform | 3 |
| Project objective | 4 |
| | |
| 2. Policy reform and adjustment in Australia | 5 |
| Managing the effects of policy reform | 5 |
| Australia's approach to adjustment assistance..... | 6 |
| General adjustment assistance - the AAA package | 7 |
| Other general adjustment assistance | 9 |
| Industry specific adjustment assistance | 10 |
| | |
| 3. Policy reform in the dairy industry | 13 |
| The first stage of dairy policy reform | 13 |
| Industry adjustment during the first stage of dairy reform | 14 |
| The second stage of dairy policy reform | 16 |
| Adjustment assistance for dairy deregulation | 17 |
| Post-deregulation developments in milk pricing | 23 |
| Industry adjustment after dairy deregulation | 23 |
| | |
| 4. Policy reform in the citrus industry | 27 |
| Pre-reform citrus industry developments | 27 |
| Citrus policy reform | 28 |
| Policy reform and citrus industry pricing developments | 29 |
| Adjustment assistance for citrus trade reform | 30 |
| Post-reform citrus industry adjustment | 33 |
| A request for further assistance | 36 |
| | |
| 5. Policy reform in the pig meat industry | 39 |
| Pre-reform developments in the pig meat industry | 40 |
| Pig meat policy reform | 41 |
| Post-reform developments in the pig meat industry | 42 |
| Adjustment assistance for pig meat trade reform | 45 |
| Post-reform adjustment in the pig meat industry | 47 |
| | |
| 6. Policy reform in South Australia's rock lobster industry | 51 |
| Pre-reform developments in the SZRL industry | 52 |
| Policy reform in the SZRL industry | 54 |
| SZRL industry developments in the post-reform period | 55 |
| Post-reform adjustment in the SZRL industry | 56 |

| | |
|--|----|
| 7. Transitional assistance for policy reform | 59 |
| Transitional assistance for Australian policy reforms | 59 |
| Implementing policy reform | 61 |
| The options for transitional assistance | 62 |
| 8. Concluding comments | 71 |
| Adjustment to policy reform in Australia | 71 |
| Transitional assistance as an element of policy reform | 73 |
| Appendix A: General adjustment assistance in Australia | 77 |
| Appendix B: Components of recent adjustment assistance in Australia | 85 |
| Appendix C: Exit assistance in Australia | 89 |
| References | 91 |

Figures – main text

| | | |
|---|---|----|
| A | Government support of OECD farm incomes in 2003 | 1 |
| B | Change in orange tree varieties..... | 35 |
| C | Change in total meat consumption..... | 45 |
| D | Total catch in the South Australian lobster fisheries | 57 |
| E | SZRL post-reform fishing activity rates | 58 |
| F | Farm exits between 2000-01 and 2002-03 | 67 |

Tables – main text

| | | |
|----|--|----|
| 1 | Funding commitments for the AAA package..... | 7 |
| 2 | Farmer participation in selected AAA programs..... | 8 |
| 3 | Market support in the lead-up to dairy deregulation | 14 |
| 4 | Industry adjustment in the lead-up to dairy deregulation | 15 |
| 5 | The effect of the initial policy reform on the producer price of milk..... | 16 |
| 6 | DSAP restructuring assistance for dairy farmers..... | 19 |
| 7 | Direct transitional assistance for dairy deregulation | 20 |
| 8 | The total cost of dairy adjustment assistance | 22 |
| 9 | Dairy industry adjustment in the post-reform period | 24 |
| 10 | The effect of trade reform on imported FCOJ prices | 30 |
| 11 | Import competition during the citrus policy reform | 31 |
| 12 | Citrus industry trade performance | 34 |
| 13 | Post-reform citrus industry adjustment..... | 37 |
| 14 | Industry adjustment before the pig meat policy reform..... | 40 |
| 15 | Competition from imported pig meat | 42 |
| 16 | Pig meat policy reform and the change in market conditions | 43 |
| 17 | The growth in pig meat exports..... | 47 |
| 18 | Industry adjustment after the pig meat policy reform | 48 |
| 19 | SZRL industry adjustment before the policy reform..... | 54 |
| 20 | Post-reform adjustment in the SZRL industry..... | 56 |
| 21 | Composition of selected adjustment assistance..... | 60 |
| 22 | A ranking of transitional assistance for policy reform | 64 |

Tables – appendixes

| | | |
|----|---|----|
| 23 | A sample of Farm Help program expenditures | 77 |
| 24 | Targeting conditions for Farm Help and EC assistance | 78 |
| 25 | Utilisation of farm management deposits, June 2004..... | 80 |
| 26 | A sample of EC program expenditures..... | 82 |
| 27 | Direct support measures in selected adjustment assistance | 85 |
| 28 | Indirect support measures in selected adjustment assistance | 86 |
| 29 | Availability of selected adjustment assistance | 87 |
| 30 | Targeting conditions for exit assistance programs | 89 |

Executive summary

The domestic impact of trade related policy reform is an important issue for many countries. Governments are often reluctant to reduce support for highly protected industries because of concerns about the ability of farmers to adjust to the change in market conditions.

In 2003 around a third of farm income in OECD countries was obtained from subsidies and market support arrangements. A number of industries in the major developed economies received high levels of assistance through policy interventions. These support measures impose costs on other parts of economy and have a distorting effect on world trade.

There has been very little reform aimed at reducing support for the most heavily protected industries. Some policy change has occurred involving reduced price support in conjunction with income support payments. But this type of reform is unlikely to stimulate the resource adjustments that will remove the distortions in world trade.

Over the past 10-15 years a number of agricultural policy reforms have been implemented in Australia. While recognising there can be a social dimension to the effects of reform there is considerable interest in the economic aspects of the industry response. This report examines the economic dimensions of industry adjustment to policy change in four case studies.

Adjustment to policy reform

Industry commentators often paint a bleak picture of the effects of reform by presenting a negative perspective based on a pre-existing situation. Concerns are raised about the risk of a long term industry contraction. This perspective ignores the fact that past experiences have shown farmers to be highly resilient and dynamic respondents to economic change:

- one of the important aspects of reform is that farmers are encouraged to focus on new income earning opportunities and/or farm performance improvements.

Concerns about the longer term effects of reform often prove to be overly pessimistic. There is widespread evidence that farmers are responsive to changes in net returns caused by market related developments. They are equally responsive to the adjustment pressures driven by policy reforms. A reduction in support will lead to farm level changes. But after a period of adjustment there is often an improvement in the industry's performance.

The way policy reforms are implemented is an important issue in the context of the WTO trade negotiations. Several developing countries have expressed concerns about the domestic consequences of a new WTO trade agreement. The major developed economies are resisting reforms to a number of highly protected industries for similar reasons.

The primary issue is the adjustment pressures that flow from trade liberalisation. Effective reductions in support will deliver substantial benefits to world economies including the countries that introduce the reforms. But these benefits can only be obtained if the resource adjustments are allowed to occur after the reforms are implemented.

From an economic welfare perspective the best response to the adjustment pressures is often to do nothing. Farmers will respond to the market prices and resource movements will occur in two ways. Some farmers will elect to leave the industry or diversify into other products. Others will remain in the industry and make changes to improve their financial position.

However, policy reform often generates political pressures for government assistance. For various economic, social and political reasons the government may decide that some form of intervention is warranted. As policy advisers are dealing with a 'second best' solution in these situations it is important to consider the unintended consequences that could arise.

There may be a social dimension to the industry adjustment to the reform. Governments have to balance their response against the costs imposed on other parts of society. Invariably the reform will involve the removal or reduction of a 'hidden' tax which creates wider economic benefits. The government response may erode these benefits:

- for many food products low income earners elsewhere in the economy are an important group of beneficiaries.

Adjustment to policy reform in Australia

It is an accepted principle in Australia that agricultural adjustment is a continuous process caused by changes in economic conditions. Farmers enter an industry after considering the potential risks and returns. The adjustment process involves farmers leaving or entering the industry. It also involves farmers expanding or reducing their involvement in the industry.

Australian experiences with autonomous adjustment indicate that farmers have shown considerable resilience and capacity to adapt to changing market conditions. Fluctuations in world prices and exchange rates affect farm returns in most industries. Farmers react to these developments by making changes to maintain the profitability of their farm business.

In general Australia does not provide long term compensation to the 'losers' of policy reform. But shorter term transitional assistance has been provided for particular circumstances. An important principle in the policy response is that assistance should be designed to encourage change and the transition of resources – it should not try to stop the adjustment process.

Australian policy reforms of the past 10-15 years have mostly involved reductions in import protection or domestic support. This report looked at four case studies of industry adjustment to a major policy change:

- the dairy reform was the overnight elimination of all market support measures;
- the citrus reform was a phased reduction in tariff protection for processing fruit;
- the pig meat reform was a change in quarantine trade access conditions;
- the SA lobster reform was the removal of open access rights to a natural resource.

In each case the impact of the policy reform on producer returns was mixed in with the effects of market related developments. It either amplified or reduced the adjustment pressures from the reform. Different forms of transitional assistance were provided to help farmers adjust and the widespread industry contractions that some had feared did not occur.

The key point that emerges from these case studies is that farmers were able to adjust to the change in market conditions. Some older farmers retired and others moved into vocations outside agriculture. Those that remained took steps to improve the physical and financial performance of their farm by diversifying, increasing output or making efficiency gains.

Deregulation of the dairy industry involved a sudden, substantial reduction in income for farmers that focused on fluid milk sales. In the first year of a deregulated market average milk prices declined by up to 18% in the states that primarily supplied fluid milk. But the industry adjusted rapidly to the effects of the reform.

A number of dairy farmers retired from the industry – farm number declined by more than 17% during the first three years of a deregulated market. Other farmers reacted to the decline in returns by expanding farm output. After a short period of adjustment there was a recovery in milk production and the industry's export performance has been maintained.

The citrus reform involved a phased reduction in import protection for processing fruit over an eight year period. The effect of the reform on average returns was amplified by a declining trend in the world price for frozen concentrated orange juice. Market prices for processing fruit declined by 45% over the period the policy reform was implemented.

Some citrus growers left the industry or diversified into other products. Others made changes in fruit varieties to reduce their dependence on sales of processing fruit. There is no evidence of a long term decline in output and after a period of adjustment there was a significant improvement in the industry's export performance.

The pig meat industry had to adjust to a relaxation of the SPS requirements for imports. Pig farmers were exposed to import competition for the first time. The alignment of market conditions to import parity pricing coincided with a period of cyclical growth in production. Pig prices declined by more than 25% during the immediate post reform period.

The number of pig farms fell by a third in the five years that followed the change in market conditions. Some non-specialist, small scale farmers left the industry. Those that remained increased the scale of their pig enterprise and improved herd management to strengthen their financial position. After a short period of adjustment industry output recovered and a specialised export trade has developed.

Policy reform in the South Australian lobster industry involved the removal of open access rights to a natural resource. The economic performance of boat owners had declined because of over exploitation of the lobster stocks. Transferable access rights and restrictions on fishing effort were introduced to establish a sustainable resource base.

After a short period of adjustment there was a rise in fishing yields. Boat numbers declined marginally but the improved performance of the fishery allowed a higher catch quota. Strong export returns and higher catch rates improved the financial position of boat owners. The industry adjustment occurred without any transitional assistance.

In each case study the impact of the reform was not as severe as the views expressed by many commentators and industry performance improved after a short period of adjustment. In three cases transitional assistance was provided as a component of the reform. The key principles were assistance was provided for a limited period and market prices directed the adjustment:

- it demonstrates that long term income supplements are not required to sustain an industry after the removal of industry support measures.

Transitional assistance for policy reform

The way policy reforms are implemented is an important issue. The approach used in these Australian case studies may not be directly applicable to situations in other countries. But the general approach should interest policy advisers faced with similar situations:

- transitional assistance was used to facilitate change;
- this involved political judgements about the relative merits of the welfare, equity and economic efficiency issues associated with the reform.

Individuals' acting in their own self interest in response to undistorted price signals is the best way for adjustment to occur. If transitional assistance is provided in conjunction with a policy reform it can affect the way farmers adjust. This raises the question of the objective of the assistance and what form it should take.

The objective of transitional assistance is to facilitate adjustment but it can have unintended consequences in the affected industry. For example, some forms of assistance create financial incentives that encourage industry participation and the adoption of a particular adjustment strategy. This can create a production distortion because output will be higher than would be the case if no assistance was provided.

It is possible to rank the options for transitional assistance according to how strongly they will introduce a production distortion. The following table indicates that short term transitional assistance is a better way to manage adjustment pressures from WTO related policy reforms than long term income support:

- it facilitates the resource adjustments that generate benefits for the domestic economy and reduces distortions in world trade.

Long term income support payments will not facilitate adjustment and is the least preferred form of assistance after production linked subsidies. If farmers receive an industry based, income supplement there will be extra resources in the industry. Farmers will be less responsive to the market price signals.

In general income support payments will have an off-setting effect on the way the reform affects the income situation of farmers. A payment that fully compensates for the initial loss of support will weaken the incentive for enterprise restructuring, diversification and farm exit decisions. It also fosters a reliance on government assistance funded by taxpayers.

Adjustment occurs because of a change in the income situation of the farmer which amongst other things can be caused by a change in price. If the farm income situation is unchanged there is very little incentive to fundamentally alter production decisions. To a large extent the pre-existing production distortions are likely to continue.

A ranking of transitional assistance for policy reform #

| | <i>Incentive for farmers to:</i> | | <i>Incentive for production</i> |
|---|----------------------------------|---------------|-----------------------------------|
| | <i>restructure</i> | <i>retire</i> | <i>distortion</i> |
| Long term income payment * | minimal | minimal | pre-existing distortion continues |
| Temporary border protection | weak | weak | temporary shorter term incentive |
| Phased reform (implicit assistance) | limited | limited | declining shorter term incentive |
| Full impact (overnight) reform with: | | | |
| - one-off, tied payment | strong | limited | one-off incentive |
| - one-off, un-tied payment | strong | strong | may be used as one-off incentive |
| - indirect assistance program | strong | immediate | minimal incentive |
| - exit grant | .. | immediate | no incentive |
| - no assistance | immediate | immediate | no incentive |

Policy options ranked from 'least preferred' to 'most preferred' solutions.

* Compensatory payment for the full effect of the loss of support.

Temporary border protection is also not a good way of providing transitional assistance and it may be counter-productive. It is a shorter term measure but it could increase a pre-existing production distortion and introduce a new distortion through higher prices for consumers. A further disadvantage is that it provides the assistance through market prices:

- farmers do not get clear price signals on the effects of the reform;
- the assistance gets mixed in with the fluctuations in market returns; and
- the size and purpose of the financial transfer is not transparent to farmers.

Implicit assistance provided through a *phased approach* to reform may be a better way of facilitating change. It is a shorter term measure that declines in value. A disadvantage with this approach is that it also uses market prices to deliver the assistance. It also delays the removal of the pre-existing production distortion as farmers are not immediately exposed to the full effects of the reform:

- the purpose of the implicit assistance is not clearly communicated – it is often viewed as a component of farm income;
- farmers are often unaware of the amount of assistance they are receiving and the scale of the impact of the policy reform.

The best way to facilitate adjustment is for farmers to get immediate, undistorted price signals on the full effects of the policy reform. This would suggest a preferable way to proceed is to adopt the *full impact (overnight) approach* to policy reform. It creates a strong incentive for farmers to immediately assess their future prospects and consider their options for change.

This approach can lead to requests for assistance, especially if it involves a large reduction in support. A one-off, untied grant has some appeal if the government decides some transitional assistance is warranted. The purpose is clearly communicated and it is more likely to be used for farm restructuring than implicit assistance obtained through market prices.

The *full impact approach* was used to deregulate the Australian dairy market. Farmers were able to see the full extent of the impact on net returns and the transitional assistance was not tied to remaining in the industry. It did not encourage a particular adjustment strategy or delay the farm level adjustment which was a relatively short process:

- a sizeable number of farmers choose to leave the industry for alternative activities;
- those that remained mostly used the assistance for restructuring purposes.

An untied payment does not limit consideration of the options for adjustment. This can be an unintended consequence of specific purpose grants. A tied payment influences the way the adjustment occurs by encouraging farmers to remain in the industry:

- it can distort decision making if farmers do not give enough consideration to diversification or farm exit decisions.

A one-off, untied payment separate from net farm returns is like receiving a wind-fall gain. It requires a decision on how to use the assistance. Some farmers will remain in the industry and use the assistance for restructuring purposes. Others will decide to exit the industry and use the assistance to reduce the costs of switching into other industries or other vocations.

Transitional measures that introduce the smallest production distortion are indirect assistance programs. This form of assistance does not create financial incentives that can distort decision making. It can facilitate adjustment provided the funds are used for meaningful initiatives.

Some forms of indirect assistance can influence farmer adjustment decisions if they strongly advocate industry participation with a particular adjustment strategy. However, the production distortion will be smaller because adoption of the strategy is self-funded. Programs that advocate a course of action can limit the consideration of other adjustment options.

Targeted exit assistance does not generate a production distortion in the affected industry. It helps farmers in severe financial difficulties to leave the industry by reducing the costs of transition. Exit programs can be a useful compliment to other assistance measures because it raises the profile of industry retirement as an option for consideration by farmers.

The best way to facilitate farmer adjustment decisions is to make the full impact of the reform transparent. Similarly, transitional assistance will be most effective at facilitating adjustment if it is received as a transparent payment. This suggests the *full impact approach* is the best way to implement policy reform either with or without adjustment assistance:

- an untied, one-off grant in conjunction with targeted exit assistance is the best form of direct assistance if it is deemed to be necessary;
- a targeted exit program in conjunction with indirect assistance is the least distorting way of facilitating change.

1. Introduction

Agricultural trade negotiations often require governments to implement policy reforms that lead to adjustment pressures for specific industries. In many cases the reforms relate to changes in trade policy instruments. But in some cases the commitments can require reforms to domestic support arrangements.

There is often a reluctance to liberalise trade policies because of concerns about the ability of farmers to adjust to the change in market conditions. Similar concerns are raised in situations where the policy reform is driven by domestic political developments. These concerns are especially evident in industries that developed with the assistance of high levels of protection and government support.

Agricultural support in OECD countries

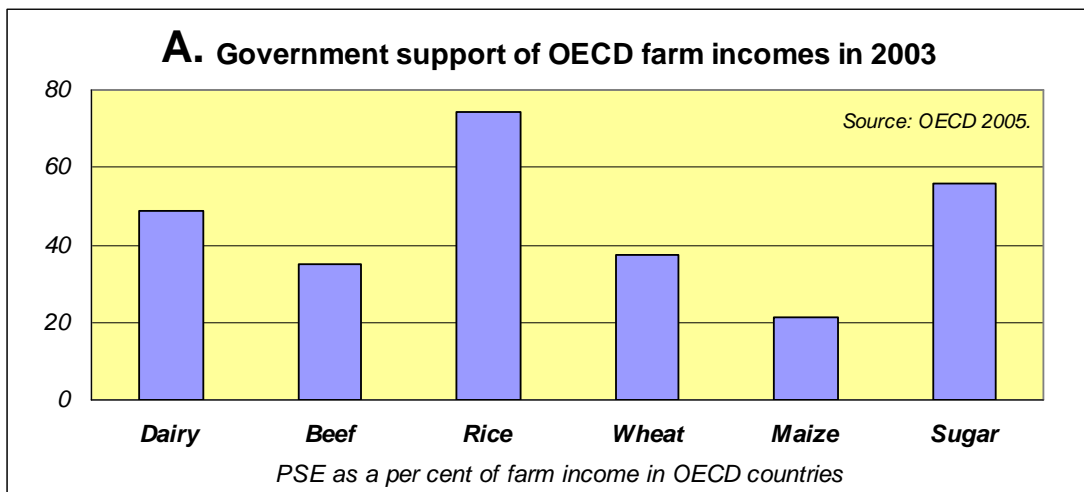
Several agricultural industries in the world's major developed economies benefit from high levels of government support (chart A). In 2003 around a third of farm income in OECD countries was obtained from subsidies and market support arrangements:

- in monetary terms farm support is only marginally below the peak reached at the start of the Uruguay Round of trade negotiations (OECD 2004).

Total agricultural support in OECD countries averaged around US\$238 billion per year over the 2001-03 period. The support imposes costs on domestic consumers through higher prices and has a substantial trade distorting effect. Market access is controlled by border protection measures. Surplus output is often sold onto world markets at subsidised prices.

There has been very little reform aimed at reducing industry support. Where reforms have been introduced they have largely focused on shifting the basis of support from market based instruments to decoupled support measures and direct payments. In some cases farmers have gained long term income support as compensation for reductions in price support:

- these payments are unlikely to reduce pre-existing output distortions and in some cases are not fully decoupled from production decisions (ABARE 2001a).



The effect of these policies is lower world prices and lower farm incomes in price responsive exporting countries. In the major developed economies some industries remain insulated from the fluctuations in global trading conditions. Despite this protection farm level adjustment has been evident in these industries. The adjustment has been driven by domestic developments such as supply growth and changes in consumer demand.

Dairy and sugar are often cited as two examples of heavily supported industries in OECD countries. Over the 2001-03 period total support averaged around US\$43.4 billion per year for dairy and US\$6.1 billion for sugar (OECD 2005). This compares with US\$27.5 billion for beef, US\$22.3 billion for rice and US\$15.2 billion for wheat.

Resistance to trade related policy reform

In the context of international trade negotiations governments are often reluctant to lower trade barriers and reduce support for highly protected industries. The resistance to reform has been evident in government discussions on the current round of WTO trade negotiations. Several developing countries have expressed concerns about the domestic consequences of a new WTO trade agreement:

- many developing countries have had limited experience in dealing with the farm level adjustment pressures that flow from trade liberalisation.

Policy makers are often concerned that a substantial reduction in support will lead to a permanent contraction of the affected industry. A common argument against reform is that the reduction in farm income would cause widespread bankruptcies. Farm retirements would weaken regional economies and lead to higher unemployment in rural areas.

This perspective takes a static view of farmer responses to a change in net returns. It ignores the evidence from unprotected agricultural industries that shows farmers adjust to market driven fluctuations in world prices. It also ignores the evidence of the way producers have responded to policy reforms in other countries (Harris and Rae 2004).

Concerns about the ability of farmers to cope with policy reform are often overly pessimistic. When market prices decline farmers react like individuals and small businesses in other sectors of the economy. They assess the implications of the change in market conditions and make adjustments to improve their financial position:

- farmers will respond in a similar fashion to a policy driven decline in net returns.

The benefits of policy reform

Industry support policies are implemented to increase returns and improve farmer incomes. But this may not be in the best interests of the industry or the wider economy. Support policies are discriminatory and can have unintended consequences. They provide financial assistance to a particular group in the economy and impose costs on others.

The domestic effect of the support policies is to impose an explicit or implicit tax on other sectors of the economy. Consumers face higher prices for the supported product and other industries may have higher input costs. The general community could face higher rates of taxation or reduced services to finance the cost of any direct assistance measures:

- taxation revenues are limited and the cost of the assistance affects Government spending in other areas of the economy.

Economic resources shift between alternative uses according to changes in relative returns. Policy interventions that artificially improve returns in a particular industry distort the distribution of the limited resources available in the economy. They distort the market signals that determine the optimal allocation of resources. The supported industry attracts extra resources that could earn a higher return in other industries.

The benefits of policy reform come from an improved allocation of resources in the economy. It leads to resource adjustments which are essential for economic growth and higher living standards. Reductions in support will mean lower prices for consumers and reduced taxation demands on the general community. Increased wealth in other parts of the economy increases the demand for goods and services which stimulates economic growth.

Policy reform may cause some resources to exit the affected industry. However, it can also lead to changes that improve the economic performance of the industry. Adjustment to changing market conditions is an important aspect of improving industry competitiveness. The reform can increase the incentive for producers to make the changes that drive longer term productivity gains:

- adoption of new technologies;
- more efficient utilisation of inputs;
- improved management skills; and
- increased scale of production.

Transitional assistance for policy reform

A reduction in industry support will lead to farm level adjustment and a shift of some primary resources into other industries. Some farmers may choose to exit the industry or diversify into other products. This will involve a shift of land and capital into other industries unless the resources are purchased by farmers that elect to remain in the industry.

At the same time there are farm level adjustments by the producers that decide to remain in the industry. These farmers will make changes to improve their financial position. This could involve an expansion, efficiency improvements or other changes to increase the physical performance of the farm enterprise. The dynamic behavioural response of producers is an important consideration for post-reform policy developments.

A number of trade related policy reforms have been implemented in Australia over the past 10-15 years. They have generally involved reductions in import protection or changes in domestic support policies. In general these experiences have shown the industry impact is often not as severe as expected. After a short period of adjustment there was an improvement in the economic performance of the industry.

The key point that emerges from the Australian experiences is that farmers adjusted to the change in market conditions. Some older farmers retired and others made the transition to vocations outside agriculture. Those that remained in agriculture took steps to improve the physical and financial performance of their farm by diversifying, increasing farm output and making efficiency improvements.

The way policy reform is implemented is an important issue for developed and developing countries. It will involve judgements about the need to provide assistance for the effects of the reform. There may be some issues that will affect resource movements and the way the industry adjusts. Governments may also want to address welfare issues for those in serious financial difficulties and reduce the costs of adjustment on equity grounds.

In recent times some developed economies have made policy changes involving a reduction in price support in conjunction with long term income support. These direct payments are provided to compensate for the effects of reduced market based support. But this approach is unlikely to stimulate the resource adjustments that generate the benefits of policy reform:

- it dilutes the effect of the changing price signals on farm level adjustment decisions.

An alternative to long term support payments is short term transitional assistance. Producers in highly supported industries are no different from other farmers. They will adjust to the reductions in support that could flow from a new WTO trade agreement. As these policy changes are usually phased-in, producers will gain some implicit transitional assistance because the final policy position is not immediately implemented.

Despite this concession there can be political pressures for governments to intervene and provide extra assistance. There may also be circumstances where the policy reform is rapidly implemented or producers face a sudden, substantial reduction in net returns due to market circumstances. This can also lead to industry requests for producer assistance.

Project objective

The provision of transitional assistance as an element of policy reform is an approach that has been used by Australian Governments in certain circumstances (Harris 2005a). A number of different transitional measures have been used in different situations. However, the common principle in these policy interventions is that assistance was provided for a limited period and it allowed market prices to guide the adjustment process:

- this approach has been preferred to the longer term assistance measures that have been used for the effects of policy change in some developed economies.

The objective of the study is to review some Australian experiences of industry adjustment to trade related policy reform. It will focus on two areas of concern for policy makers:

- the industry adjustment response; and
- the use of transitional assistance to facilitate the adjustment process.

The project will examine four industry case studies. Each case study involves a different type of reform and a different approach to implementation. In each example there were industry requests for assistance based on the expected impact of the reform. The government response to these requests varied in each case.

From an economic welfare perspective the best response to the adjustment pressures that flow from policy reform is often to 'do nothing'. However, governments may choose to intervene for various economic, social and political objectives. This can mean policy makers are dealing with a 'second best' solution. In these situations it is important to consider the distortions and unintended consequences that could flow from the policy proposals.

The approach used in these Australian situations may not be directly applicable to other industry situations and for the circumstances in other countries. However, the case studies highlight various issues with the implementation of policy reform and the development of transitional assistance measures. The general approach used in these Australian examples should interest policy makers facing similar situations.

2. Policy reform and adjustment in Australia

Trade related policy reform has shaped the development of a number of agricultural industries in Australia. In most industries farmers are continually adjusting to fluctuating world prices and other factors such as changing seasonal conditions. But for some industries policy reform has been another factor contributing to the need for change.

The response to these adjustment pressures shows that farmers react rationally to a change in their financial situation. Some respond by retiring or leaving agriculture for an alternative vocation. Others choose to switch or diversify into other agricultural activities. Producers that remain in the industry make on-farm adjustments to offset a potential decline in income.

Managing the effects of policy reform

Trade related policy reform can create adjustment pressures that may seem unreasonable from a political perspective. Reform is often resisted on the grounds of the cost of adjustment for farmers. If a policy reform is implemented it often leads to industry requests for assistance.

In general there are three ways governments can respond:

- implement the reform in full and ‘do nothing’ but rely on safety net welfare programs to assist those who experience financial difficulties;
- provide long term compensatory support for the effects of the reform; or
- provide short-term transitional assistance to facilitate the adjustment process.

The ‘do nothing’ approach ensures producers get clear market signals on the full impact of the reform and the need for change. For some farmers the policy change may erode their financial position. General safety net programs (e.g. unemployment benefits) may be available to help these farmers make changes to their situation:

- to provide effective assistance these programs have to be accessible by farmers;
- eligibility conditions have to account for the financial aspects of farming.

The second approach can help to offset the financial effects of the reform but there is a cost for the domestic economy. It dilutes the incentive for change that comes from the changes in market prices which limits the movement of resources to higher returning industries. There is less incentive for farmers to make management improvements which drive the productivity gains that determine future industry competitiveness. It can also encourage low income farmers to remain in the industry.

The economic distortions created by the original support policy are replaced by the effects of another form of support. The benefits of reform for consumers and tax-payers are not realised as the pre-existing output distortions are likely to continue. It means less wealth creation in the economy and over time it can perpetuate industry expectations of ongoing assistance.

The third approach uses shorter term transitional assistance to help farmers adjust. In some respects this can be a reasonable approach to implementing reforms involving substantial, sudden reductions in support. It softens the initial costs of adjustment but avoids the economic cost of longer term compensatory support.

Transitional assistance can be provided in a number of ways. It could involve direct assistance for farmers. For example, a phased-in reform gives farmers some implicit assistance because the impact on farm returns is only gradually imposed. Alternatively the policy reform could be fully implemented in conjunction with explicit, industry specific adjustment assistance.

An important consideration is access conditions for the safety net welfare assistance available to the general community. These programs may have eligibility conditions that limit their effectiveness in helping farmers in financial difficulties. It may require the industry transition assistance to include specific safety net measures for the circumstances of the reform.

Transitional measures could also involve indirect assistance for producers. Market distortions may affect the ability of farmers to adapt to the market conditions. There may be deficiencies in market development, quality control, R&D, information dissemination and infrastructure. It could reflect a market failure that requires government intervention through:

- industry level programs to correct for the distortions; and/or
- initiatives to stimulate a change in industry behaviour.

Australia's approach to adjustment assistance

Two government agencies play a leading role in providing independent advice on the way Australian policy reforms are implemented. The Productivity Commission (PC) and the National Competition Council (NCC) often recommend a phased approach to reform. This is done to give industry players time to adjust to the change in market conditions.

Both organisations acknowledge that extra assistance measures may be warranted in some circumstances (NCC 1999; PC 1999a). They often note the availability of safety net welfare programs to address the adverse effects of economic change. But they recognise that these programs may not always provide an adequate response for industry adjustment issues.

An important principle in PC advice on assistance for policy reform is that it should not try to stop the adjustment process (PC 1998, 2002). Government programs should be designed to encourage change and the transition of resources. For example, this was the Commission's position in the latest review of assistance for the TCF industries (PC 2003).

Policy change often has an impact that is concentrated in particular regions while the benefits are widely dispersed. For this reason equity considerations can play a role in decisions to provide transitional assistance. However, in general the PC view is that if assistance is provided, it should be targeted at those who will be severely affected (PC 2002):

- assistance measures should consider the financial capacity of individual producers to cope with the costs of transition.

Equity considerations can sometimes involve the issue of compensation for the elimination of tradable property rights. Some agricultural reforms involving the loss of property rights have included a one-off compensation payment. For example, deregulation of the NSW egg market in 1989-90 included compensation for the end of production quota rights (IC 1991).

In general Australia does not provide long term compensation to the 'losers' of policy reform. Farmers are treated no differently to small business enterprises in other sectors of the economy. They voluntarily enter an industry after considering the risks and potential returns. The government does not underwrite the business risks from policy changes or declining market returns with long term assistance such as income support.

General adjustment assistance – the AAA package

It is an accepted principle that agricultural adjustment is a continuous process caused by changes in the economic conditions. Part of the process involves farmers leaving or entering the industry. It also involves farmers expanding or reducing their involvement in the industry.

Australian Governments have provided adjustment assistance to the agricultural sector for particular circumstances. In some cases industry specific assistance has been made available for the effects of policy change or other unusual events. There are also a range of general assistance programs to help farmers adjust to economic change.

The aim of the general assistance measures is to encourage farmers to make changes that will improve their financial position. The programs are relevant to the issue of industry adjustment to policy reform. Some industry transition arrangements have relied on elements of these general programs to help farmers adapt to the new market conditions.

General adjustment assistance is available through the *Agriculture – Advancing Australia* (AAA) package. It was established in September 1997 with funding of A\$525 million over three years (table 1). The package was designed to help the rural sector become a more competitive, sustainable and profitable component of the economy (DAFF 2005a).

The package is composed of several programs that offer different forms of assistance. The aim of the package is to build the capacity of producers to change through self-reliance and risk management. It replaced the *Rural Adjustment Scheme* (RAS) and has four objectives:

- to help farmers profit from change;
- provide access to income support and professional advice;
- provide incentives for farm level adjustment; and
- encourage social and economic development in rural areas.

Over time there have been changes in the content of the package and some programs have been discontinued. In May 2000 the package was enhanced and extended for four years with funding of A\$380 million. A further four year extension was announced in May 2004. Most of the programs provide direct assistance to producers (DAFF 2005a).

1. Funding commitments for the AAA package

| | <i>Availability of programs</i> | | <i>AAA funding</i> | |
|--|---------------------------------|--------------|--------------------|------------------------|
| | <i>period</i> | <i>years</i> | <i>A\$m</i> | <i>A\$m per year *</i> |
| Original package | 1997-98 to 1999-00 | 3 | 525 | 175 |
| Package extension one ** | 2000-01 to 2003-04 | 4 | 380 | 95 |
| Package extension two | 2004-05 to 2007-08 | 4 | 305 | 76 |
| - <i>Farm Help program</i> | | | 135 | 34 |
| - <i>FarmBis program ***</i> | | | 133 | 33 |
| - <i>Rural Financial Counselling service</i> | | | 23 | 6 |
| - <i>Other programs</i> | | | 13 | 3 |
| Total | | | 1 210 | 110 |

Based on announced budget allocations for the programs.

Sources: DAFF 2005a; Truss 2004b.

* Derived as total funding divided by announced funding period.

** Includes expenditures of A\$71m from the State Governments for the FarmBis program.

*** Includes expected matching commitment of A\$66.7m from the State Governments.

Total funding for the AAA package currently stands at A\$1,210 million over eleven years. Over time farmer participation in AAA programs has gradually increased (table 2). There are four programs that are relevant to the issue of industry adjustment to policy reform:

- *Farm Help*;
- the *Rural Financial Counselling Service*;
- *FarmBis*; and
- the *Farm Management Deposit* (FMD) scheme.

The main programs are discussed in more detail in appendix A. *Farm Help* is a welfare safety net specifically designed for the circumstances of agricultural adjustment. It offers assistance to farmers who are experiencing financial difficulties. Since 1997 the program has been utilised by over 7,800 farmers (DAFF 2005c).

Eligibility for the *Farm Help* program is limited to farmers who are unable to borrow against their assets. The program offers welfare assistance while farmers consider their options for the future. Fortnightly income support is available for up to twelve months. The assistance is paid at the same rate as social security payments for the general community:

- it is subject to an income test and a non-farm assets test;
- the assets test is more generous than the test used in the social security program.

Farm Help includes direct assistance for farmers to examine the options for improving their financial position or to retire from agriculture. It offers a grant of up to A\$5,500 for training and professional advice. It also offers a re-establishment grant of up to A\$50,000 for farmers who decide to retire. The exit assistance is subject to an assets test:

- recipients of a *Farm Help* re-establishment grant have to sell their farm and are not allowed to own or operate a farm for five years.

The *Rural Financial Counselling Service* provides independent financial advice to producers and small businesses in rural areas that are experiencing financial difficulties. This could involve activities such as financial assessments or the preparation of loan applications. The counsellors also provide advice on how to access government assistance programs.

FarmBis is a training program to improve the business and risk management skills of farmers. It offers grants to industry associations and other groups to subsidise the cost of developing training initiatives. It also offers a subsidy for farmers to undertake training. Since 1997 there have been around 150,000 participants in *FarmBis* training activities (DAFF 2005c).

2. Farmer participation in selected AAA programs

| | Awareness | | | Participation rate | | |
|----------------------------------|-----------|------|------|--------------------|------|------|
| | 1998 | 2000 | 2002 | 1998 | 2000 | 2002 |
| | % | % | % | % | % | % |
| <i>Farm Management Deposits</i> | 33 | 51 | 72 | 4 | 9 | 24 |
| <i>FarmBis</i> | 14 | 62 | 80 | 1 | 25 | 51 |
| <i>Rural Counselling Service</i> | .. | .. | 68 | .. | .. | 15 |
| <i>Farm Help</i> | 41 | 44 | 36 | 2 | 4 | 3 |

Based on survey results for a sample of 2,550 producers over 14 industry groupings.

Source: DAFF 2005a.

The sample was developed to cover a range of producers with different income, equity and scale of operations.

The 1998 & 2000 survey results reflect an individual response, the 2002 results reflect a farm enterprise response.

The *Farm Management Deposit* (FMD) scheme is as a cash flow management tool for primary producers. It allows farmers to set-aside pre-tax income in profitable years which can be accessed during years of low income (DAFF 2005d). Tax payable on the FMD deposit is deferred until the money is withdrawn provided the FMD is maintained for twelve months.

FMDs are held by individuals. This means a farm enterprise could have more than one FMD holder. The scheme is available to individuals with off-farm taxable income of less than A\$50,000. There is a cap of A\$300,000 on the total FMD holdings by an individual. Many farmers have made use of the scheme:

- in June 2004 there were 43,000 individuals using the FMD scheme with total holdings of A\$2.6 billion (DAFF 2005e).

Farm Management Deposits provide assistance by reducing the average amount of tax paid by those who participate in the scheme. FMD withdrawals are likely to occur in periods of reduced income when the farmer is in a lower tax bracket. Over time the average after tax income position of participants will be higher.

The scheme helps farmers to manage the annual fluctuations in net farm incomes caused by changes in market returns and seasonal conditions. All farmers that pass the off-farm income test can potentially utilise the scheme. However, low income farmers and those in financial difficulties are unlikely to be in a position to gain assistance from the scheme.

Producers with highly profitable farms have a strong incentive to use the scheme because of the taxation advantages. This could mean the assistance is mostly obtained by farmers with the greatest capacity to cope with the annual fluctuations in net farm incomes. These farmers would also be in a stronger position to cope with the effects of a policy reform:

- low income farmers will face stronger adjustment pressures from the effects of changes in market returns, seasonal conditions and support policies.

FMDs have provided a substantial amount of financial assistance to those who have utilised the scheme. Recent estimates by the Treasury indicate the scheme was worth about A\$930 million for the five years to the end of 2004-05 (Truss 2005). It reflects the taxation revenue foregone by the government. The average assistance level of A\$186 million per year is much larger than other forms of assistance in the AAA package:

- the *Farm Help* program is currently worth about A\$34 million per year;
- since 1997-98 the FMD scheme and government funding commitments to the AAA package has delivered assistance worth A\$2,069 million.

Other general adjustment assistance

Two other programs have some relevance to the issue of industry adjustment to trade related policy reform:

- the *Exceptional Circumstances* (EC) program (see appendix A); and
- regional assistance programs.

Exceptional Circumstances is a regionally based program that provides short term assistance to farmers experiencing a decline in income caused by a rare and severe event (DAFF 2005f). The aim of the program is to ensure 'viable farmers' are not forced to leave agriculture by an unforeseen climatic or other event that is beyond the scope of normal risk management.

The EC program has two components of assistance. A welfare component offers income support for up to two years which can only be extended if there is a roll-over in the EC declaration. Assistance is paid at the same rate as the unemployment benefit for the general community. Eligibility is subject to an off-farm income test and a non-farm assets test.

EC business assistance is provided through an interest rate subsidy of up to 50% on an existing loan in the first year of a declaration. If the EC declaration continues the subsidy rises to 80% of the interest payable on new and existing loans in the second and third years (Truss 2005). Assistance is capped at A\$100,000 per year or A\$300,000 over five years:

- applicants have to demonstrate they have financial difficulties caused by the EC event and eligibility is subject to a non-farm assets test.

The EC program is the primary mechanism for helping farmers cope with the effects of severe drought conditions. It does not cover events such as the effects of policy reform. It also excludes the effects of a prolonged downturn in market prices. *Exceptional Circumstances* are defined as a rare and severe event that is not part of a long term structural adjustment process.

In June 2005 the government introduced some changes to the eligibility conditions for the EC program. The non-farm assets test for business assistance was increased from A\$217,500 to A\$435,000. There was also a temporary A\$10,000 increase in the income test threshold for welfare assistance to A\$41,000 per year.

The more generous eligibility criteria are expected to significantly increase the amount of EC assistance paid to those in drought affected areas. The changes were introduced because of concerns about the number of producers who were assessed to be ineligible for assistance under the previous conditions:

- during the 2003 – 2005 drought EC assistance of more than A\$680 million had been distributed in the period up to June 2005 (Truss 2005).

In the past the government has also established programs that focused on regional adjustment issues. The *Rural Partnership Program* (RPP) was established in 1995 to promote economic change in regional areas (AFFA 2003). Individual RPPs operated in 12 regions until the end of 2001-02 with joint Commonwealth and State Government funding of A\$114 million.

The RPPs offered assistance to producers in a particular region. In some cases farmers were adjusting to the effects of policy reform and changing market conditions (e.g. citrus, dried vines fruits). Several programs offered grants for particular farm business activities. In some cases eligibility was subject to an assets test and the amount of assistance was capped.

In 2001-02 the RPP was replaced by the *Agricultural Development Partnership* (ADP) program. This program does not provide direct assistance to farmers. It offers project funding for regional communities to identify structural adjustment issues and to implement strategies that address those issues (DAFF 2005g).

Industry specific adjustment assistance

There have been situations where industry specific adjustment assistance has been provided for the effects of policy change and other unusual events. In general assistance is not provided for market related developments but there have been exceptions. For example, in 2000 the sugar industry received assistance for the combined effects of low world prices, poor seasonal conditions and a disease outbreak (AFFA 2000a).

Industry reactions to the implementation of policy reform have often led to requests for assistance. The requests have typically focused on financial help for on-farm restructuring, short term welfare support and exit assistance. In some situations there have been requests for temporary import protection or a delay in the implementation of reform.

In most cases the industry had already obtained some implicit transitional assistance through the phased implementation of the reform. The value of this assistance is determined by the length of the phase-in period and the extent of the policy change. For traded products world price changes can also affect the value of this implicit assistance.

The government response to requests for additional explicit assistance has varied. In some situations the government relied on the *Farm Help* safety net program to assist those who experienced financial difficulties in the post-reform period. In other situations a package of transitional measures were implemented in conjunction with the reform. This has generally involved programs:

- to assist producers in financial difficulties to exit the industry; and
- to encourage improvements in producer competitiveness.

Programs aimed at improving producer competitiveness have involved a variety of direct and indirect assistance measures. Direct assistance has been provided for activities such as farm restructuring, diversification, training and adopting new technology. Typically these measures have been targeted at those in most need. In general the programs have:

- eligibility conditions; and
- an income and non-farm assets test to determine the amount of assistance.

Indirect assistance often involves funding for projects to improve industry competitiveness and to shape the direction of the adjustment process. There is no direct financial help for farmers but the assistance demonstrates the government is aware of the adjustment issues facing the industry. The assistance is mostly used to address industry issues beyond the farm-gate. Often the initiatives are targeted at areas of perceived market failure such as:

- development of export markets – market access, promotion;
- R&D on specific issues and industry development strategies;
- domestic marketing initiatives – grading, quality assurance, promotion; and
- infrastructure support.

3. Policy reform in the dairy industry

The Australian dairy industry has had a long history of price support from government policy arrangements. For many years it gained assistance from support policies that allowed farmers to earn higher returns on sales in the domestic market. In more recent times the industry's development has been shaped by policy reform and fluctuations in world prices.

Developments since the mid 1980s provide an example of trade related policy reform to a domestic market support program. There were two stages of reform that used different approaches. The first stage was a lengthy, phased reduction in assistance for the export sector which commenced in July 1986. The second stage involved the overnight elimination of all price support mechanisms in July 2000.

Overnight deregulation was an unusual experience in Australian policy reform. The decision was announced 9 months before it was implemented and there was considerable uncertainty about the implications for average milk returns. Dairy farmers had limited time to consider their situation and prepare for the change in market conditions.

The two stages of reform involved different forms of adjustment assistance. The initial reform provided implicit transitional assistance by phasing the reduction in support. Producers did not immediately face the full effects of the policy change. The second reform involved a sudden, substantial loss of income for many farmers. It involved transitional assistance measures that provided A\$1.75 billion in direct assistance for farmers.

The dairy reforms provide a comparison of adjustment to a phased reduction in assistance and to an immediate elimination of market support. Dairy deregulation was a major development for the Australian rural sector. A detailed discussion of the way the reform was implemented and the industry adjustment response is available in a separate report (Harris 2005b).

The first stage of dairy policy reform

The initial reforms were implemented in a complex trading environment. A national market for dairy products did not exist. Government regulations had created an artificial market separation between fluid milk sales and the milk used for dairy products. The Commonwealth Government maintained a price support scheme for manufacturing milk. State governments had created six separate markets for fluid milk through independent price support schemes.

Producer prices for fluid milk sales were regulated by state marketing authorities. There was no commonality in the regulated prices which were about twice the price paid for milk used for manufacturing purposes. Some states used production quotas to limit access to the fluid milk market. Other states had pooling arrangements where farmers gained a price premium for a fixed proportion of their milk output (Phillips 2002).

Manufacturing milk prices were supported by policy measures that required consumers to pay higher prices for processed dairy products. This raised the price of manufacturing milk above export parity. Policy reforms were introduced in the mid 1980s to encourage a focus on export markets for sales growth:

- the pooling of export returns was abolished; and
- market support for manufacturing milk was to be phased down from around 40% of average export prices to 10% by 2000 (ADC 1999).

3. Market support in the lead-up to dairy deregulation

| Year ending 30 June | Manufacturing | Fluid | Average | | Market support rate: | |
|-----------------------|----------------------|----------------------|-----------------------|-----------------|-----------------------------|-------------------|
| | milk price * | milk price ** | milk price *** | % change | Maximum ^ | Adjusted ^ |
| | Ac/litre | Ac/litre | Ac/litre | % change | % | % |
| 1995-96 | 28.0 | 45.0 | 31.7 | .. | 22.9 | 17.8 |
| 1996-97 | 26.0 | 45.9 | 30.2 | -4.7 | 26.8 | 21.6 |
| 1997-98 | 24.8 | 46.2 | 29.1 | -3.7 | 26.2 | 21.3 |
| 1998-99 | 25.0 | 45.5 | 28.9 | -0.9 | 23.4 | 18.9 |
| 1999-00 | 22.1 | 45.5 | 26.3 | -9.0 | 24.2 | 19.9 |
| 5 year average | 25.2 | 45.6 | 29.2 | .. | 24.7 | 19.9 |

Indicative average prices paid at factory door.

Source: ADC 2002.

* State weighted average price based on manufacturing milk production - includes market support (DMS) payments.

** State weighted average price based on fluid milk sales - net of levy payment (1.9 Ac/litre) for DMS Scheme. Additional funding for the DMS scheme from levy on domestic sales of manufactured dairy products.

*** Weighted average price based on manufacturing milk production and fluid milk sales.

^ Estimate of weighted average nominal rate of assistance at factory door.

Maximum rate assumes no commercial price premium for fluid milk on factory price of manufacturing milk.

Adjusted rate assumes a 20% commercial price premium for fluid milk on factory price of manufacturing milk.

Price support for fluid milk sales remained unchanged during the implementation period and continued to provide substantial assistance to many dairy farmers. Towards the end of reform implementation period the nominal rate of assistance was around 20-25% (table 3). This reflects the average rate of price support across all states in the lead up to deregulation.

Individual farmers gained different levels of assistance based on their exposure to each policy arrangement. Market support varied across the states because of differences in the regulated price of fluid milk (PC 1999b). Victoria had the lowest rate of assistance (11-12%) because fluid milk sales were a small component of state milk output (Harris 2005b):

- Queensland (51-65%) and NSW (33-46%) had the highest rates of assistance because of a strong focus on fluid milk sales.

Industry adjustment during the first stage of dairy reform

There was considerable adjustment in the dairy industry during the first stage of reform. This is evident in the trends for farm exits and the changes in farm performance (table 4). Between 1984-85 and 1999-00 almost 6,450 farms left the industry. Adjustment was strongest in south-eastern Australia where farmers focused on manufacturing milk production.

Despite the fall in farm numbers milk production increased by about 80% to 10.8 billion litres. The extra milk supplies were mostly used for manufactured dairy products. By 1999-00 fluid milk sales were less than 18% of total output but there were significant differences between the states.

- in Victoria the fluid milk market share had declined to less than 7% while in Queensland it remained largely unchanged at 45%.

The growth in milk output was strongest in the export sector with Victorian production almost doubling to 6.9 billion litres. The industry expansion was driven by strong growth in export sales of butter, cheese and milk powders. By 1999-00 exports of these products had reached 700 kt, an increase of almost 150% on export sales in 1984-85.

4. Industry adjustment in the lead-up to dairy deregulation

| Year ending 30 June | | 1974-75 | 1979-80 | 1984-85 * | 1989-90 | 1994-95 | 1999-00 |
|------------------------|-------------|---------|----------|-----------|----------|----------|----------|
| Number of farms | number | 30 630 | 21 994 | 19 342 | 15 396 | 14 166 | 12 896 |
| | change | .. | -8 636.0 | -2 652.0 | -3 946.0 | -1 230.0 | -1 270.0 |
| Milk production | m litres | 6 496 | 5 432 | 6 033 | 6 262 | 8 206 | 10 847 |
| | % change | .. | - 16.4 | 11.1 | 3.8 | 31.0 | 32.2 |
| Output per farm | '000 litres | 212 | 247 | 312 | 407 | 579 | 842 |
| | % change | .. | 16.5 | 26.3 | 30.4 | 42.4 | 45.3 |
| Herd size | head/farm | 77 | 85 | 93 | 107 | 129 | 168 |
| | % change | .. | 11.2 | 9.4 | 14.9 | 19.7 | 31.0 |
| Milk yield | litres/head | 2 758 | 2 889 | 3 337 | 3 786 | 4 504 | 4 996 |
| | % change | .. | 4.7 | 15.5 | 13.5 | 19.0 | 10.9 |

* Policy reform to reduce support for manufacturing milk returns commenced in July 1986.

Source: ADC 2002.

During this period there were substantial changes in the physical performance of dairy farms. Many farmers increased output by using more primary inputs – land and livestock. But there were also gains in the amount of milk produced from these inputs. Producers used more secondary inputs such as improved pastures, fertiliser, irrigation and supplementary feeding to improve pasture utilisation and to increase milk yields.

Changes in per farm milk output reflect the net results of the farm level adjustments. In the 15 years to 1999-00 farm output increased by 170%. This was partly due to a scale expansion with the average herd size increasing by 80%. There were also improvements in livestock performance. In 1984-85 milk yields averaged around 3,340 litres per cow. By 1999-00 yields had risen to almost 5,000 litres per cow.

Producers adjusted to the change in market conditions that occurred as industry support was reduced. The farm level adjustment was mostly driven by market related developments. In the 1990s export returns were under pressure because of market access restrictions and subsidised exports. Producers responded by increasing output to improve their financial position.

The effect of the policy reforms of the mid-1980s was limited because the reduction in assistance was phased-in over a 15 year period. It reflects the implicit assistance from the phased approach to reform. Farmers were able to cope with the gradual reduction in support and the government did not provide any extra transitional assistance.

The effect of the reform was not as severe as expected. But the growth in exports had made the industry more vulnerable to fluctuations in world prices. Manufacturing milk producers had to improve their financial management skills in order to manage the risks associated with changes in exchange rates and global market conditions.

In the lead up to deregulation there was considerable variation in manufacturing milk returns. The effect of market forces on producer returns was an average annual price reduction of around 5% (table 5). The policy reform had an additional negative impact of around 1%.

The effect of reduced assistance for manufacturing milk on average milk returns was diluted by the market support for fluid milk. For example, in the year before deregulation occurred (1999-00) manufacturing milk returns declined by almost 12%. This was mostly caused by lower export prices. The overall effect on the average milk price was a fall of 9%.

5. The effect of the initial policy reform on the producer price of milk

| | <i>Fluid milk price *</i> | <i>Manufacturing milk price:</i> | | <i>Average milk price:</i> | |
|-----------------------|---------------------------|----------------------------------|-------------------------------|---------------------------------|-------------------------------|
| | <i>% change</i> | <i>Market effect % change</i> | <i>Net effect ** % change</i> | <i>Market effect ^ % change</i> | <i>Net effect ^^ % change</i> |
| 1996-97 | 2.0 | -7.5 | -7.1 | -4.8 | -4.7 |
| 1997-98 | 0.5 | -3.3 | -4.8 | -2.8 | -3.7 |
| 1998-99 | -1.5 | 1.4 | 0.9 | -0.8 | -0.9 |
| 1999-00 | 0.1 | -9.6 | -11.6 | -7.6 | -9.0 |
| Average effect | 0.3 | -4.8 | -5.7 | -4.0 | -4.6 |

Indicative average prices paid at factory door.

Source: ADC 2002.

State weighted average prices based on manufacturing milk production and fluid milk sales.

* Average regulated fluid milk price before deducting levy payment (1.9 Ac/litre) for market support (DMS) scheme.

** Average price after adjusting for market support (DMS) payments.

^ Average price before deducting fluid milk levy payment - excludes market support (DMS) payments for manufacturing milk.

^^ Average price after adjusting for levy deduction and market support (DMS) payments.

The second stage of dairy policy reform

In the late 1990s there were considerable commercial pressures for further policy reform. Strong growth in milk supplies had diluted the value of support payments for manufacturing milk. The revenue raised by the support arrangements was spread over larger supplies of milk. Government legislation for the support scheme was due to terminate in June 2000.

The ability of manufacturers to charge higher prices for dairy product sales on the domestic market was limited by import competition. Australia had a free trade agreement with New Zealand. The support scheme encouraged imports when prices rose above export parity. Imports of New Zealand cheese had increased steadily during the first stage of reform:

- in the late 1990s New Zealand supplied around 13% of the cheese market.

Industry agreements to restrict interstate trade in fluid milk were under pressure from market forces. Commercial players in Victoria were looking to exploit their competitive position and expand into interstate markets. Trading restrictions had prevented lower priced manufacturing milk from competing with the higher priced fluid milk sales in other states.

In the late 1990s all dairy support policies were subjected to *National Competition Policy* (NCP) reviews. This was a key pressure point for dairy deregulation (Edwards 2003). In mid 1999 the Victorian NCP review concluded there was no public benefit in the state's fluid milk price controls. With industry support the Victorian Government announced the regulations would end on 1 July 2000:

- this decision made the price support schemes in other states unviable – it removed the incentive for Victoria to comply with the interstate trading restrictions.

It was generally accepted this decision would cause the price support schemes for fluid milk in other states to collapse. This would lead to an immediate and substantial loss of income for many producers. There were industry concerns about the difficulty of adjusting to a sudden change in market conditions. It was suggested the change could force many producers to leave the industry and cause a major industry contraction.

The industry decided a process of managed deregulation was a preferable way to proceed. A proposal was developed to simultaneously end all market support schemes in conjunction with transitional assistance. The Commonwealth Government refined the proposal and agreed to help facilitate an orderly market transition from 1 July 2000:

- a restructuring package worth A\$1.8 billion would be implemented if all state governments decided to end their fluid milk regulations (Truss 1999b).

The decision to facilitate market deregulation was announced in September 1999. There was a lot of uncertainty about the implications for milk prices. Farmers had nine months to consider their position and decide how to respond to the sudden change in market conditions.

Overnight deregulation was an unusual approach to take. But it was considered to be the most sensible course of action in the circumstances (DAFF 2005h). Phasing-out support was not a realistic option. Fluid milk prices were regulated at different levels in each state and market determined prices were likely to vary on a regional basis. It would be difficult to coordinate a progressive policy change by eight separate governments.

Adjustment assistance for dairy deregulation

The transitional assistance measures used for the second stage of policy reforms are discussed in detail in a separate report (Harris 2005b). There were two assistance packages. The initial package was announced before the reforms were implemented. This was to ensure assistance was available as soon as possible after the support measures were removed.

The *Dairy Industry Adjustment Package* (DIAP) had three components:

- the *Dairy Structural Adjustment Program* (DSAP);
- a *Dairy Exit Program* (DEP); and
- the *Dairy Regional Adjustment Program* (DRAP).

A supplementary package of assistance measures were implemented towards the end of the first year of a deregulated dairy market. The centrepiece of the second package was the *Supplementary Dairy Assistance* (SDA) scheme.

DSAP - adjustment assistance for dairy producers

The DSAP component of the package provided transitional assistance for all farmers affected by the reform. The program was developed in early 1999 and was based on estimates of the value of the support measures in 1998-99:

- support for manufacturing milk was equivalent to 6-7% of market prices;
- regulated prices for fluid milk were 85-135% above manufacturing milk prices.

DSAP assistance was worth A\$1.63 billion. The DSAP grants provided explicit transitional payments in place of the implicit assistance that would have been obtained if a phased approach to reform had been adopted. Some form of transitional assistance was considered necessary because the full effect of the reform would be felt overnight.

The program involved individual restructuring grants that reflected estimates of the likely impact on farm income. Estimates of the initial effect on farmer incomes ranged from around 10% for manufacturing milk producers to more than 25% for producers that focused on fluid milk sales. Farmers entering the industry after deregulation were excluded from the program.

Individual restructuring grants were fixed amounts based on milk produced in the 1998-99 season. They were calculated on the basis of two payment components – 46.23 Ac/litre for fluid milk and around 8.96 Ac/litre for manufacturing milk (DAA 2000a). The grants were equivalent to the loss of 2-3 years of the income obtained from the regulations.

DSAP entitlements were allocated to a farm enterprise. Anyone with an economic interest in a dairy enterprise on the 28th of September 1999 could apply for an entitlement. Most farms supplied both types of milk in different amounts. The DSAP entitlement reflected estimates of the loss of the nominal value of price support from ending the two sets of regulations:

- DSAP entitlements were decoupled from future milk production decisions;
- 1998-99 milk delivery records for the existing price support schemes were used to verify the entitlement for each farm enterprise (DAA 2000b).

Producers had to complete a *Farm Business Assessment (FBA)* before their entitlement was confirmed (DAA 2000e). This was a statement of net assets with a summary of annual income and expenditures. It also assessed the effect of deregulation for various price projections. The aim of the FBA was to encourage farmers to consider their options for adjustment.

Entitlements were split into 32 quarterly instalments and a fixed payment right was issued for an eight year period from 2000-01. It was shared among the parties with a verifiable interest in the farm enterprise. There were around 13,150 dairy farms eligible to apply and DSAP payments were made to 29,897 entities associated with the farm entitlements (ANAO 2004).

There were industry concerns that quarterly distributions of transitional assistance could encourage farmers to view the grant as an income support payment. This could dilute the program objective which was to facilitate adjustment. A single payment was more likely to encourage producers to consider the options for restructuring their farm enterprise.

DSAP entitlements were a fixed stream of government guaranteed payments. With industry support several banks established facilities to convert the entitlements to a lump-sum payment (Commonwealth Bank 2000). Many farmers assigned their rights to a bank in exchange for the discounted present value of the total entitlement. The banks had provided an option to 'buy-out' the value of the government assistance which proved to be highly popular.

DSAP payments were assessable income for tax purposes. Tax liabilities were retained by individuals even if the entitlement was converted to a lump-sum payment. The entitlement for an individual enterprise was capped at A\$350,000. The cap did not apply if the applicant's dairy income exceeded 70% of gross farm income for a specified period (DAA 2000f).

The average DSAP entitlement was considerably higher in states where fluid milk sales were a high proportion of total milk output. For example, the average DSAP entitlement was worth A\$196,000 per farm in NSW compared with A\$97,000 in Victoria (table 6):

- around 55% of DSAP funds were allocated to the 18% of total milk production that was used for fluid milk sales.

SDA - Supplementary adjustment assistance

An assessment of the initial impact of deregulation showed significant regional variations in the price and income effects (ABARE 2001b). Higher export prices had cushioned the effect on manufacturing milk returns. But market determined prices for fluid milk suggested the DSAP assistance may have underestimated the regulated component of the price premium.

6. DSAP restructuring assistance for dairy farmers

| | <i>Fluid milk *</i> | | <i>Manufacturing milk</i> | | <i>Total DSAP **</i> | |
|------------------------|---------------------|---------------------|---------------------------|---------------------|----------------------|---------------------|
| | <i>Total</i> | <i>Payments per</i> | <i>Total</i> | <i>Payments per</i> | <i>Total</i> | <i>Payments per</i> |
| | <i>payments</i> | <i>farm ^</i> | <i>payments</i> | <i>farm ^</i> | <i>payments</i> | <i>farm ^</i> |
| | <i>A\$m</i> | <i>A\$'000</i> | <i>A\$m</i> | <i>A\$m</i> | <i>A\$m</i> | <i>A\$'000</i> |
| Victoria | 235 | 30 | 523 | 67 | 758 | 97 |
| New South Wales | 276 | 160 | 62 | 36 | 338 | 196 |
| Queensland | 181 | 117 | 40 | 26 | 221 | 143 |
| Other States | 202 | 111 | 110 | 61 | 312 | 172 |
| Australia | 893 | 69 | 735 | 57 | 1 628 | 126 |

* Estimate based on 1998-99 fluid milk sales & DSAP entitlement rate of 46.23 Ac/litre.

Sources: ANAO 2004; ADC 2002.

** DSAP rights granted at June 30 2004 - includes payments for exceptional events and anomalous circumstances.

Excludes discretionary payment rights granted under the SDA scheme.

^ Total payments per number of registered dairy farms as at 30 June 2000.

The government was concerned about the extent of the decline in fluid milk prices which had been larger than expected (Truss 2001). In May 2001 some additional assistance measures were introduced:

- A\$100 million for a *Supplementary Dairy Assistance* (SDA) scheme;
- A\$20 million of extra DRAP funding; and
- A\$20 million for additional DSAP discretionary payments.

The SDA scheme was implemented to provide extra assistance for farmers that were heavily dependent on fluid milk sales. Producers with a DSAP entitlement and an economic interest in a dairy enterprise on the 21st of May 2001 could apply for an SDA entitlement. Farmers who had exited the industry by this date were excluded from the scheme.

Eligibility for an SDA entitlement was restricted to farms with fluid milk sales exceeding 25% of total production in 1998-99. These farms received a fixed payment worth:

- A\$10,000 for a fluid milk dependency of 25-30%; or
- A\$15,000 for a fluid milk dependency of more than 30%.

Farms with a fluid milk dependency of more than 35% were assessed for an alternative payment. It was calculated on a sliding scale of 0.12 Ac/litre for every 0.1% of milk output above the 35% cut-off point. The payment rate was capped at 12 Ac/litre for the fluid milk sales that exceeded 45% of total production:

- SDA entitlements for these farms were based on this alternative payment rate if the amount exceeded the fixed payment rate of A\$15,000.

SDA payments were capped at A\$60,000 per farm and treated as taxable income. Farmers had the option of a lump-sum or 32 quarterly instalments. Payments were backdated to July 2000 and lump-sums were calculated as the discounted present value of the quarterly entitlements.

The scheme had a significant effect on the distribution of the overall level of assistance. SDA eligibility criteria excluded farms in Victoria and Tasmania because of their heavy focus on manufacturing milk. The targeting mechanism shifted the distribution of the assistance away for the export sector of the industry.

Farms with a heavy reliance on fluid milk sales received more assistance. For example, an average sized farm with a 30% fluid milk dependency gained a relatively modest 6% increase in the amount of assistance to A\$166,000. If the same farm had a fluid milk dependency of 50% the amount of assistance increased by 22% to A\$260,000 (Harris 2005b).

SDA entitlements were mostly distributed to farms in Queensland, NSW and Western Australia. Farmers in these states had experienced financial losses from the elimination of quota rights. On a per litre basis the extra assistance was targeted towards small and medium scale farms by the cap on the SDA payment rate:

- large scale fluid milk producers had received substantial DSAP entitlements – the payment cap limited the amount of extra assistance for these producers.

The objectives of the DSAP and SDA assistance measures were different. DSAP provided an equitable transition payment to all farmers in place of the implicit assistance that would have been obtained from phasing out the support programs. The SDA scheme was designed to provide extra targeted assistance to particular producers.

SDA payments increased the adjustment assistance for fluid milk sales by around 11% to A\$995 million (table 7). Extra funds for DSAP discretionary payments were provided for farms that had their initial assessment affected by unforeseen circumstances (DAA 2000c, 2000d):

- in total the DSAP/SDA transitional payments were worth almost A\$1.75 billion.

DSAP/SDA entitlements were shared between entities with an economic interest in the farm enterprise. There were rules to determine distributions in share farming and lease situations (DAA 2000g; DAA 2000h). Entitlement holders did not have to remain in the industry and there were no conditions on how the DSAP/SDA payments could be used.

After accounting for discretionary payments to the reassessed applicants there were more than 30,500 payments of DSAP assistance. A further 7,739 payments were made under the SDA scheme (DAA 2004). The average payment was around A\$54,000 for DSAP claims and A\$13,000 for SDA claims (Harris 2005b).

7. Direct transitional assistance for dairy deregulation

| | <i>SDA fluid milk entitlements *</i> | | | <i>Total DSAP/SDA assistance **</i> | | |
|------------------------|--------------------------------------|-------------------------|--------------|-------------------------------------|-----------------------|---------------------------|
| | <i>Basic right</i> | <i>Additional right</i> | <i>Total</i> | <i>Fluid milk payments</i> | <i>Total payments</i> | <i>Payment per farm ^</i> |
| | <i>A\$m</i> | <i>A\$m</i> | <i>A\$m</i> | <i>A\$m</i> | <i>A\$m</i> | <i>A\$'000</i> |
| Victoria | .. | .. | .. | 235 | 769 | 98 |
| New South Wales | 3.5 | 42.5 | 46.0 | 322 | 384 | 223 |
| Queensland | 5.4 | 28.2 | 33.6 | 214 | 256 | 165 |
| Other States | 8.3 | 13.9 | 22.2 | 224 | 339 | 186 |
| Australia | 17.2 | 84.5 | 101.7 | 995 | 1 748 | 136 |

* No SDA payments for fluid milk dependency of 25% or less.

Sources: DA 2004; DAA 2004; CES 2003b.

Basic right was A\$10,000 for fluid milk dependency of 25-30% and A\$15,000 for fluid milk dependency of more than 30%.

Additional right based on a sliding scale of per litre payments for fluid milk dependency exceeding 35%.

** Fluid milk payments include estimates of DSAP payments and total SDA entitlements.

Total payments include discretionary payment rights of A\$18m granted under the SDA scheme.

^ Total payments per number of registered dairy farms as at 30 June 2000.

DEP - exit assistance for dairy farmers

Farmers with a DSAP entitlement had the option of applying for exit assistance under the *Dairy Exit Program* (DEP) if they wished to retire from the industry. The program was established as a 'safety net' for farmers in financial difficulties. It largely replicated the exit assistance in the *Farm Help* program but did not offer income support payments.

Applicants had to prove they had been a dairy farmer for at least two years and were unable to borrow against their assets. Successful applicants were required to cancel and repay their DSAP entitlements. Acceptance of a DEP grant also required producers to sell their dairy farm and withdraw from agricultural production for five years.

The program offered a tax-free re-establishment grant of up to A\$45,000 and a retraining grant of up to A\$3,500 to develop skills for a new vocation. The exit grant was subject to an assets test. The maximum grant was available if net assets after the sale of the farm were less than A\$90,000 (DAA 2000i). The grant was reduced by A\$2 for every A\$3 of net assets above this threshold. There was no grant if net assets exceeded A\$157,500.

Farmers who had previously received exit assistance under a similar scheme (e.g. *Farm Help*) were excluded from the program. It was open for two years and closed in June 2002. After the program closed DSAP entitlement holders could apply for *Farm Help* exit assistance. But successful applicants were required to cancel and repay their DSAP/SDA assistance.

Most of the farmers who left the industry did not apply for DEP assistance and retained their DSAP/SDA transition payments. During the first two years of deregulation 1,840 farmers left the industry. There were only 134 recipients of DEP assistance with program expenditures of A\$5.7 million (CES 2003a).

The limited use of DEP assistance reflected the primary eligibility condition – loan refusals – and the assets test threshold. For some potential applicants the farm sale requirement and five year exit condition may have been a deterrent to participating. It removed the option of retaining the farm and diversifying into other agricultural activities.

Potential applicants also had to consider the trade-off between a tax free DEP grant and their taxable DSAP/SDA entitlements. Producers with a high proportion of fluid milk sales had relatively large entitlements. Farmers with small entitlements had more incentive to apply and small scale manufacturing milk producers were the main source of applicants:

- 78% of successful applicants had DSAP/SDA entitlements of less than A\$20,000;
- about half of the DEP grants went to Victorian producers (CES 2003a).

Share farmers and lessees with a stake in the farm enterprise were eligible for the program. Individuals in these situations were more likely to apply because they only received a share of a DSAP/SDA entitlement. They were also more likely to meet the assets test for the exit grant. Only 21% of DEP grants were paid to owner-operators (CES 2003a).

DRAP - adjustment assistance for regional communities

The initial assistance package included A\$45 million for a *Dairy Regional Adjustment Program* (DRAP) over three years (Truss 2000a). This program was established because of concerns about the regional economy effects of lower farm incomes, farmer retirements and plant closures. It was subsequently extended with extra funding of A\$20 million when the SDA scheme was announced.

The objective of DRAP was to create employment in dairy dependent communities that were adversely affected by deregulation (Truss 2000c). Program funds were used to support local business investment initiatives, infrastructure projects, retraining activities and counselling services. Applicants were required to contribute at least 50% of the cost of the project.

DRAP funds were distributed across several regions through several rounds of competitive project assessments. Dairy farmers were excluded from the program and most of the project funding was used for business development activities. Some dairy companies obtained grants for plant redevelopments and other business initiatives.

Funding for dairy adjustment assistance

The total cost of adjustment assistance for the second stage of dairy policy reform was A\$2 billion. This included A\$1.75 billion in direct assistance for farmers (table 8). The assistance programs were not funded from general taxation revenues. They were funded by a specific levy of 11 Ac/litre on retail sales of fluid milk.

The *Dairy Adjustment Levy* was imposed on fresh milk distributors. The cost was passed on to consumers through higher retail prices. The consumer tax will remain in place until the cost of the assistance programs is fully covered. This includes administration expenses, interest costs and the DRAP assistance for dairy communities:

- the levy is expected to apply for 10 years and terminate in 2010 (DAFF 2005h).

The government adopted this approach to funding because milk consumers would be the main beneficiaries of the policy reform. Price support schemes had imposed an implicit tax on milk consumers which would be removed with deregulation. If the reform had been phased in the implicit tax would have remained in place for a period of time. The levy has had an equivalent effect – it has delayed passing on the full benefits of the reform to consumers.

The levy is equivalent to a two step phase out of the price support schemes for fluid milk. The levy was set at a rate that would achieve a significant reduction in the retail price of milk once deregulation had occurred. It was based on estimates of the decline in farm gate prices and the flow-on effect for supermarket prices of generic brand milk.

8. The total cost of dairy adjustment assistance

| | Cost of assistance | | Program establishment | Program termination |
|--|---------------------------|------|------------------------------|----------------------------|
| | A\$m | % | | |
| Dairy Structural Adjustment Program | 1 628 | 81.1 | May 2000 | June 2008 |
| - DSAP discretionary payments | 18 | 0.9 | September 2001 | June 2008 |
| Supplementary Dairy Assistance | 102 | 5.1 | September 2001 | June 2008 |
| Dairy Exit Program | 6 | 0.3 | May 2000 | June 2002 |
| Dairy Regional Adjustment Program * | 65 | 3.2 | May 2000 | August 2004 |
| Borrowings ** | 47 | 2.4 | May 2000 | June 2010 |
| Administration *** | 142 | 7.1 | May 2000 | June 2010 |
| Total | 2 009 | | | |

* Funding expanded by A\$20m in May 2001 as part of the SDA package.

Source: DAA 2004; ANAO 2004.

** Borrowings to finance the shortfall between annual levy income and total expenditures on the adjustment measures.

End of borrowing requirements based on expected termination date for levy collections.

*** Current and future expenses incurred by the DAA, DAFF, Dairy Australia and other agencies in delivering the programs.

Post-deregulation developments in milk pricing

There were some important developments in farm gate milk pricing after the final reform was implemented. Farm returns became fully linked to world market prices for manufactured dairy products. Commercial requirements for a reliable supply of non-seasonal milk caused processors to introduce supply contracts (NCC 2004).

Producers supplying non-seasonal milk receive a commercially based price premium over the price received for seasonal milk. Processors pay a premium because of the higher cost of producing year round milk supplies. To remain competitive this price differential has to take account of changes in seasonal milk prices and the cost of milk transport.

The effect of deregulation on seasonal milk prices was cushioned by a strong rise in export returns in 2000-01. In Australian dollar terms the world prices for milk powders increased by 50-70% and cheddar cheese prices increased by almost 30%. The rise in export returns continued in 2001-02 due to a devaluation of the Australian dollar.

Two years of strong export returns offset the loss of market support for farmers that focused on manufacturing milk production. In Victorian the farm gate price of milk increased by 33% in the first year of deregulation and a further 15% in 2001-02 (DA 2004). This was followed by a substantial price correction in 2002-03 in line with weaker export returns.

Deregulation caused a substantial fall in farm gate prices for non-seasonal milk. In 2000-01 average milk prices fell by 12% in NSW and 17% in Queensland. This suggests the initial fall in non-seasonal milk prices was around 15-20 Ac/litre. This assessment is consistent with an ACCC review of post deregulation pricing developments:

- average milk costs in the processing sector declined by 35% in the first half of 2000-01 (ACCC 2001);
- a 15-20 Ac/litre fall in farm gate prices is equivalent to a 35-40% decline in input costs for milk processors in NSW and Queensland.

Subsequent pricing developments suggest there was a partial recovery in non-seasonal milk prices in later years. In part this reflected the strengthening export returns in 2001-02. Severe drought conditions in 2002-03 were also a contributing factor. The dry conditions may have required a higher price premium to secure the necessary supplies of non-seasonal milk.

A further development was the emergence of distinct regional differences in milk pricing. This reflected changes in the approach used by dairy companies to secure their milk supplies. Dairy companies have increasingly taken a regional perspective on the value of regional milk supplies and the requirements of individual processing plants.

The changes in producer prices for non-seasonal milk were consistent with the changes in retail milk prices. In 2000-01 the price of supermarket sales of generic house brand milk declined by about 20 Ac/litre. This reduction occurred despite the introduction of the 11 Ac/litre levy to fund the government assistance programs.

Industry adjustment after dairy deregulation

The industry adjustment that was evident during the first stage of reform accelerated after the overnight removal of market support. But the changes that occurred were not solely driven by the effects of deregulation on farm gate returns. Market developments also played a role in the industry adjustment.

Deregulation increased the rate of adjustment in farm numbers and on-farm performance (table 9). Between 1999-00 and 2002-03 around 2,240 dairy farms retired from the industry, a reduction of 17%. The rise in farm exits was evident in both sectors of the industry although there were differences in the timing of the response.

In Victoria, farm retirements increased in the first year of deregulation but the response was limited. For manufacturing milk producers the financial effects of the policy reform were not evident. Farm gate prices had increased strongly on the back of higher export returns.

The adjustment in Victorian farm numbers accelerated in 2001-02 despite good seasonal conditions and continued strong returns. Improved farm asset values may have created an opportunity for some farmers to leave the industry. Farm exits continued at a high rate in 2002-03 when export returns weakened and seasonal conditions deteriorated:

- in the three years to 2002-03 more than 1,000 farms left the industry in Victoria;
- the annual exit rate of 4.5% was well above the exit rate of 1.2% in the 1990s.

The response by producers focused on fluid milk sales was immediate. In NSW almost 20% of the state's dairy farms left the industry in 2000-01. In Queensland 15% of farms retired from the industry. After three years of deregulation farm numbers had fallen by 420 in NSW and 435 in Queensland. Most of the adjustment occurred during the initial two years:

- by 2002-03 exit rates had returned to levels typical of the pre-deregulation period.

Changes in industry output and export performance

The policy reform had a limited short term impact on industry performance. In 2000-01 milk production declined by 3%. It was the first reduction in output since 1989-90. Poor seasonal conditions were a contributing factor. Most of the reduction was due to a fall in Victorian milk supplies caused by a decline in herd performance.

9. Dairy industry adjustment in the post-reform period

| Year ending 30 June | | 1999-00 | 2000-01 * | 2001-02 | 2002-03 ** | 2003-04 ** |
|------------------------|--------------------|---------|-----------|---------|------------|------------|
| Number of farms | <i>number</i> | 12 896 | 11 839 | 11 048 | 10 654 | 9 611 |
| | <i>change</i> | - 260.0 | -1 057.0 | - 791.0 | - 394.0 | -1 043.0 |
| Milk production | <i>m litres</i> | 10 847 | 10 547 | 11 271 | 10 326 | 10 075 |
| | <i>% change</i> | 6.6 | - 2.8 | 6.9 | - 8.4 | - 2.5 |
| Output per farm | <i>'000 litres</i> | 842 | 891 | 1 020 | 969 | 1 048 |
| | <i>% change</i> | 8.8 | 5.9 | 14.5 | -5.0 | 8.1 |
| Herd size | <i>head/farm</i> | 168 | 184 | 192 | 192 | 211 |
| | <i>% change</i> | 2.8 | 9.1 | 4.5 | 0.1 | 9.7 |
| Milk yield | <i>litres/head</i> | 4 996 | 4 847 | 5 309 | 5 038 | 4 965 |
| | <i>% change</i> | 5.8 | -3.0 | 9.5 | -5.1 | -1.4 |

* Poor season and deregulation on 1 July.

Source: DA 2004.

** Widespread drought conditions.

p - provisional.

The policy reform also played a role in the reduced industry output. In 2000-01 milk supplies fell by 10% in Queensland and 5% in NSW. The reduced the supply of milk in these States and was largely caused by the farm retirements and lower cow inventories:

- by the end of the first year of deregulation cow inventories had declined by 7% in Queensland and 3% in NSW.

Industry output recovered in 2001-02 with milk supplies rising by 7%. The growth in output was driven by developments in the export sector. Victorian output increased by 9% despite the large number of farm exits. Improved seasonal conditions and higher returns encouraged Victorian farmers to use more supplementary feed to increase milk yields.

The output adjustment in other parts of the industry began to stabilise in the second year of deregulation. Milk output was marginally lower in Queensland and marginally higher in NSW. This suggests the resource adjustments to the overnight policy reform largely happened over a two year period:

- the rapid response contrasted with the gradual adjustment that occurred during the first stage of dairy policy reform.

In 2002-03 milk production and cow inventories declined across the industry. In some regions the effects of deregulation may have been a contributing factor through further farm exits. But to a large extent, these developments reflected the effects of lower export returns and the drought conditions that affected all dairying regions.

The drought continued affecting farm performance in 2003-04 and more than a thousand farms left the industry. Much of this adjustment can be attributed to the financial effects of two years of drought. Some producers were highly vulnerable the effects of a drought because of earlier decisions to increase borrowings:

- farmers that focused on fluid milk sales had borrowed funds for farm developments that would improve their financial position in a deregulated market;
- in the export sector higher returns had encouraged some farmers to borrow funds for an expansion of their dairy enterprise.

AAA programs may have affected the adjustment that occurred during the two years of drought. Under certain conditions proceeds from the forced sale of livestock are excluded from the assets test for *Exceptional Circumstances* welfare assistance (DAFF 2005f). This may have encouraged some farmers to temporarily reduce the size of their dairy herds:

- the *Farm Management Deposit* scheme may have helped some dairy farmers to manage the financial effects of the drought.

Deregulation had some flow-on effects for the industry's export performance. Initially, reduced supplies of manufacturing milk caused a reduction in export volumes. This was primarily due to the poor seasonal conditions in Victoria. But it also reflected a decline in manufacturing milk supplies in NSW and Queensland:

- Australian exports of the major dairy products declined by 6% in 2000-01.

The impact on the industry's export performance was short term. Export sales recovered in 2001-02 in line with the strong growth in Victorian milk supplies. In subsequent years the drought conditions reduced milk supplies and curtailed the industry's export capacity.

Changes in farm level performance

There were significant changes in farm performance in the two years following deregulation. Most farmers reacted to the market developments by increasing farm output. Cow herds were expanded and farmers altered their use of secondary inputs. Farm carrying capacity increased with a greater use of improved pastures, fertiliser and irrigation. Better pasture management and increased supplementary feeding contributed to higher milk yields.

Changes in milk output per farm reflect the net results of these farm level adjustments. It shows farmers reacted rapidly to the changes in market conditions. After two years per farm output had increased by 21% and the change was evident in both sectors of the industry.

During this period per farm output increased by 26% in NSW and 17% in Queensland. This was primarily a response to the effects of the policy reform. Victorian farm performance was initially affected by poor seasonal conditions but after 2 years per farm output had increased by 19%. In part this reflected an increased use of supplementary feed as farmers looked to capitalise on the strong export returns.

The growth in farm output was primarily driven by expansions in scale. After two years the average herd size had increased by 14%. The expansion was less pronounced in Victoria but average herd sizes increased significantly in NSW and Queensland. Farmers in these states expanded their dairy enterprise in order to strengthen their financial position.

Increasing production in the face of lower returns may seem counter intuitive. However, it can be a rational response to a sudden structural change in market conditions by farmers who elect to remain in the industry. The industry impact of a policy reform reflects the net effect of farm exit and diversification decisions and the adjustment decisions by those that remain:

- it can lead to changes in enterprise performance by the remaining producers which can turn around an initial contraction in industry output.

The physical performance of Australia's dairy farms in 2002-03 reflects the dry conditions that affected all dairying regions. It had a significant impact on industry performance with per farm output and average milk yields declining by around 5%. The impact of the drought was especially evident in Victoria. Reduced output and lower export returns caused a sharp decline in farm income.

Adjustment to the effects of deregulation affected the financial performance of farms in NSW and Queensland. Farm survey results show the decline in returns caused a sharp drop in net farm incomes in 2000-01 (Harris 2005b). But there was a recovery in financial performance in subsequent years in line with increased production and higher average returns.

The financial performance of Victorian dairy farms was markedly different. Two years of strong export returns was reflected in higher milk revenues and substantial increases in net farm income. This was followed by a severe contraction in farm incomes in 2002-03 due to the combined effects of lower export returns and widespread drought conditions.

4. Policy reform in the citrus industry

The Australian citrus industry has had a history of market support through import protection and tax concessions. For many years orange growers were sheltered from import competition by trade barriers on frozen concentrate orange juice (FCOJ). The protection provided support for the industry as growers gained higher returns for processing fruit sales.

Citrus market developments since the late 1980s provides a more typical experience in trade related policy reform. In 1988-89 the industry began adjusting to a gradual reduction in FCOJ tariff rates. It provides an example of a phased approach to policy reform where growers had a considerable amount of time to adapt to the change in market conditions:

- there was an eight year phase-in period to the final policy position.

The change in trade policy and subsequent fluctuations in world FCOJ prices has shaped the recent development of the industry. Grower returns for processing fruit declined during the period the policy reform was implemented. The effect of reducing import protection on average returns was amplified by a declining trend in the world price for FCOJ.

The reform was implemented in a way that provided implicit transitional assistance for citrus growers. Producers were not required to immediately absorb the full effect of the final policy position. Over time the pressure on returns led to industry requests for additional assistance. The government responded with an A\$8.4 million industry development program that was implemented near the end of the eight year phase-in period.

The program provided assistance for specific projects that were aimed at improving industry competitiveness. It is an example of indirect assistance where the government encouraged a course of action that would influence individual adjustment decisions. The program did not provide any direct assistance to growers. Instead, the government relied on other, general assistance programs to facilitate farm level adjustment.

The final policy position was reached in July 1996. During the post-reform period there were continuing pressures for change caused by an ongoing decline in world FCOJ prices. The industry made a further request for assistance including WTO import safeguard measures. A public inquiry by the Productivity Commission (PC 2002) found there was no case for new assistance measures.

Pre-reform citrus industry developments

In the early 1980s the citrus industry was experiencing global market conditions that involved a declining world price for FCOJ. Producers were protected from import competition by a tariff of 65%. Despite this protection the profitability of citrus growers was deteriorating. The industry approached the government for assistance:

- in 1982-83 border protection was revised to a 10% ad valorem tariff plus a specific rate tariff of A\$750/tonne of total soluble solids (tss).

The revised trade policy provided higher levels of support in periods of low world prices. To encourage industry restructuring the specific tariff was scheduled to decline by A\$250/tonne over a five year period to A\$500/tonne in 1987-88. During this period world prices continued to weaken and the trade barriers provided significant market support for the industry.

Growers also gained support from a domestic sales tax exemption on fruit juice products with a minimum local content of 25%. The tax exemption was replaced by a concessionary sales tax of 10% in 1986. Both tax concessions helped to support grower returns because of the incentive for juice processors to use local fruit instead of imported concentrate.

Citrus growers primarily supplied fresh fruit and processed juice products to the domestic market. Oranges accounted for around 80% of industry output and competition from imports of fresh fruit was limited. The industry was largely composed of small scale family farms located in four regions of irrigated horticulture:

- Riverland in South Australia;
- Sunraysia and Mid-Murray regions of southern NSW and northern Victoria;
- Riverina in NSW;
- Central-Burnett and Emerald regions of Queensland.

The large number of small scale orchards can be traced back to Soldier Settlement schemes that granted small land holdings to returned soldiers (PC 2002). However, many growers did not solely rely on citrus fruit to sustain their farm business. They were diversified into non-citrus products such as grapes, stone fruit, vegetables, apples and pears.

Throughout the 1980s there was increasing competition from FCOJ imports in the processed juice sector. World prices were declining due to strong growth in export supplies from Brazil. Growers that focused on processing fruit were dependant on the tariff assistance. They were facing financial pressures from declining average returns caused by fluctuations in domestic output and increased import competition.

Citrus policy reform

In July 1988 the government announced a policy reform that would gradually reduce import protection. Border protection was changed to a tariff of 35%. In the lead up to this decision an anti-dumping case against imports from Brazil had established a floor price of A\$1,640/tonne. However, there were no anti-dumping duties imposed under this arrangement.

The policy change required the tariff to be phased down over eight years to 5% by 1996-97. A lengthy phase-in period was the preferred approach to facilitate industry adjustment. This provided some implicit transitional assistance for a period of time. Growers did not immediately face the full policy change as was the case for dairy deregulation:

- when the tariff reductions commenced in 1988-89 the effective rate of assistance to the citrus industry was estimated at 22% (PC 2002);
- by 1996-97 the rate of assistance had declined to around 3%.

The change in policy was a unilateral reform initiated by the government. It was implemented outside the international trade negotiation process but was recognised as part of Australia's commitments in the Uruguay Round Agricultural Agreement. The WTO bound tariff rate for FCOJ imports is 24% but the applied rate has remained at 5% since July 1996:

- there are no tariffs on imports of fresh fruit.

In 1995 WTO rules required the removal of the sales tax concessions for local content juice products. It was replaced by a differential tax arrangement with no local content requirement. This removed the discrimination against imported FCOJ that was embodied in the regulations. The differential taxation arrangements ended in July 2000 with the introduction of the GST.

Policy reform and citrus industry pricing developments

Grower returns for oranges are determined by demand and supply conditions in the fresh fruit and processed juice market segments. In the early 1990s valencia fruit accounted for about 70% of the total crop. Around two thirds of the valencia crop was used for processed products such as fresh juice and juice concentrate.

Navel oranges accounted for 30% of the total crop. Navels were mostly consumed as fresh fruit on the domestic market. Some produce was exported as fresh fruit and the lower quality fruit was directed into the processing sector. In the early 1990s around 35% of the navel crop was used for fresh juice and juice concentrate.

Producer returns for fresh fruit are significantly higher than the prices received for processing fruit. Consequently the average price received for navel oranges is substantially higher than the average returns for valencia fruit. This reflects the stronger consumer preference for navels as fresh produce.

FCOJ imports do not compete with domestic sales of fresh fruit. They compete with domestic supplies of processing fruit. In the early 1990s about 55% of the crop was used for processed products. Imports are a strong substitute for domestic supplies of frozen concentrate. But it is less substitutable for the non-frozen concentrate (NFC) used in fresh juice products.

Strong growth in the fresh juice sales helped to moderate the competitive impact of imported FCOJ. However, the development of reverse osmosis-membrane technology made fresh juice a tradeable product. Domestic processing fruit had to be competitive with world prices. In the mid to late 1990s around 15-20% of the domestic crop was used for NFC.

The decline in the landed price of imported FCOJ affected grower returns in different ways. It had a minimal impact on growers that focused on navel oranges with limited supplies of processing fruit. Growers with orchards dominated by valencia fruit and supplying large volumes of processing fruit experienced a bigger impact:

- the regional impact varied because of differences in the mix of tree varieties;
- the pressure on average returns was strongest in the Riverina region where growers were heavily focused on valencia fruit sales (PC 2002).

The trade reform was implemented during a period of declining world prices for FCOJ (table 10). During the phase-in period the landed price in Australia followed a similar trend but with considerable fluctuations. When the final tariff position was reached in 1996-97 the landed FCOJ price was around A\$1,500/tonne – about 30% below the average price in 1988-89.

Over the same period the market price of imported FCOJ declined by around 45%. This indicates the competitive impact of imported FCOJ was mostly driven by market related developments. The eight year phase-in period softened the effects of the reform by requiring growers to adjust to incremental reductions in import protection:

- the reform caused FCOJ price reductions of between 2% and 4% per year;
- the annual effect of the tariff cuts varied between A\$29 and A\$127/tonne.

In the first year of the phase-in period the market price of imported FCOJ declined by 37%. If the tariff had been immediately reduced to 5% the 1988-89 market price would have declined by 51%. The market price was around A\$640/tonne higher than would have been the case if the reform had been fully implemented.

10. The effect of trade reform on imported FCOJ prices

| Year ended 30 Sept | World price * | Landed price in Australia ** | | Market price in Australia *** | | Annual effect of tariff reform # | |
|--------------------|---------------|------------------------------|----------|-------------------------------|----------|----------------------------------|----------|
| | \$US/t | A\$/t | % change | A\$/t | % change | A\$/t | % change |
| 1987-88 | 2 431 | 3 839 | .. | 4 547 | .. | .. | .. |
| 1988-89 ^ | 1 506 | 2 123 | -44.7 | 2 866 | -37.0 | 206 | 7.7 |
| 1989-90 ^ | 1 705 | 2 547 | 20.0 | 3 311 | 15.5 | -127 | -3.7 |
| 1990-91 ^ | 1 178 | 1 726 | -32.3 | 2 157 | -34.9 | -86 | -3.8 |
| 1991-92 ^ | 1 415 | 2 116 | 22.6 | 2 539 | 17.7 | -106 | -4.0 |
| 1992-93 ^ | 848 | 1 387 | -34.5 | 1 595 | -37.2 | -69 | -4.2 |
| 1993-94 ^ | 954 | 1 586 | 14.4 | 1 777 | 11.4 | -48 | -2.6 |
| 1994-95 ^ | 942 | 1 459 | -8.0 | 1 605 | -9.7 | -29 | -1.8 |
| 1995-96 ^ | 1 255 | 1 901 | 30.3 | 2 053 | 27.9 | -38 | -1.8 |
| 1996-97 ^ | 1 024 | 1 505 | -20.8 | 1 580 | -23.0 | -45 | -2.8 |
| 1997-98 | 877 | 1 481 | -1.6 | 1 555 | -1.6 | 0 | 0 |

* Price of FCOJ exports from Brazil, fob, 65 degrees Brix.

Source: FDC 2004

** World price adjusted for exchange rates and 15% margin for freight & handling (based on estimates provided by ACG).

*** Landed price of imported FCOJ adjusted for import tariffs.

Effect of the annual change in tariff rate on FCOJ market price.

^ Trade policy reform to reduce import protection implemented in July 1988.

FCOJ import tariffs were progressively reduced from 35% in 1988-89 to 5% in 1996-97. From 1993-94 the schedule of tariff reductions was altered by a Government commitment made at the March 1993 election.

This is an indication of the ‘value’ of the implicit transitional assistance for citrus growers in 1988-89. On a fresh fruit basis the price of processing fruit used for frozen concentrate was supported by a corresponding amount. The annual ‘value’ of the transitional assistance from the phased approach to reform declined over the course of the implementation period.

Adjustment assistance for citrus trade reform

The industry became concerned about the financial pressures on citrus growers as the policy reform was implemented. These concerns were related to the gradual reduction in import protection at a time when world FCOJ prices were declining. Increased competition from FCOJ imports was seen to be the cause of the adjustment pressures.

Imports of FCOJ increased substantially during the implementation period (table 11). At the same time the market for processed citrus products expanded. Market growth was driven by lower prices and increasing demand for fresh juice. The price received for fruit used in FCOJ had declined in line with lower import prices:

- by 1997-98 imported FCOJ had a 47% share of the processing fruit market.

The industry reacted to these developments with a request for adjustment assistance. The government decided the circumstances did not warrant the provision of direct assistance for growers. The financial pressures were primarily caused by long term changes in world trading conditions and a reluctance of growers to adapt to the changing market environment.

The government position was that a decline in returns caused by market related developments was not a sufficient reason to provide adjustment assistance. This was considered to be part of the normal business risks associated with investments in agricultural industries. Small businesses in other parts of the economy faced similar investment risks and did not receive assistance when market conditions deteriorated.

11. Import competition during the citrus policy reform

| Year ending 30 June | FCOJ imports * | | Processing fruit supplies | | Domestic consumption ** | | FCOJ market share |
|---------------------|----------------|----------|---------------------------|----------|-------------------------|----------|-------------------|
| | '000 tonnes | % change | '000 tonnes | % change | '000 tonnes | % change | % share |
| 1987-88 | 14 | .. | 293 | .. | 292 | .. | 4.8 |
| 1988-89 ^ | 112 | 700.9 | 207 | -29.4 | 293 | 0.0 | 38.4 |
| 1989-90 ^ | 80 | -28.4 | 299 | 44.4 | 349 | 19.4 | 23.0 |
| 1990-91 ^ | 72 | -10.3 | 279 | -6.7 | 331 | -5.3 | 21.8 |
| 1991-92 ^ | 119 | 64.8 | 291 | 4.3 | 399 | 20.5 | 29.8 |
| 1992-93 ^ | 64 | -46.1 | 397 | 36.4 | 450 | 12.8 | 14.2 |
| 1993-94 ^ | 97 | 51.5 | 403 | 1.5 | 485 | 7.9 | 20.0 |
| 1994-95 ^ | 158 | 62.4 | 368 | -8.6 | 507 | 4.4 | 31.1 |
| 1995-96 ^ | 242 | 53.8 | 205 | -44.3 | 422 | -16.7 | 57.4 |
| 1996-97 ^ | 187 | -22.7 | 316 | 53.8 | 480 | 13.6 | 39.0 |
| 1997-98 | 229 | 22.3 | 279 | -11.7 | 487 | 1.5 | 47.0 |

* Fresh fruit equivalent, 1 tonne of FCOJ = 13 tonnes of fresh fruit.

Sources: ACG 2004; ABARE 2004b.

** Domestic consumption of processed orange products derived as domestic supplies - exports + imports.

^ Trade policy reform to reduce import protection implemented in July 1988.

In November 1994 the government responded to the industry concerns by implementing the *Citrus Market Development Program* (CMDP). A five year program was created to facilitate adjustment and to improve international competitiveness and long term growth prospects (AFFA 2000b). The strategy was to improve industry profitability by encouraging a focus on export sales of fresh products (Troeth 1999).

The CMDP was a transitional program that provided indirect assistance for the industry. It financed projects that addressed issues which affected the ability of producers to adjust to the change in market conditions. The program objectives were to:

- increase exports through improved market access and promotion;
- increase the domestic demand for fresh juice; and
- reduce grower dependence on the lower valued FCOJ market (AFFA 2000b).

The A\$8.4m program was aimed at all sectors of the industry – growers, processors, packers and exporters. It supported projects that were designed to shift the industry focus away from competition with imported FCOJ. There was an emphasis on projects aimed at increasing export opportunities for fresh fruit and fresh juice (PC 2002; AFFA 2000b).

CMDP funding was allocated to four project areas:

- improved quality assurance (QA) – A\$0.8 million;
- domestic promotion of fresh juice sales – A\$1.3 million;
- export promotion and market access issues – A\$4.0 million; and
- increased supply chain efficiencies through improved coordination of production and marketing activities – A\$2.1 million.

Quality assurance projects were aimed at raising industry awareness of quality control issues in supplying higher valued fresh fruit (Hassall & Associates 1999). Domestic promotion was aimed at expanding the demand for fresh juice. These projects supported the strategy of shifting the industry focus towards higher valued products on the domestic market.

Market access and export promotion was a central focus of the CMDP. Market evaluations were prepared to identify new opportunities for export sales and market entry barriers. Funds were also provided for export promotion activities. These initiatives supported the strategy of encouraging increased exports of fresh fruit.

The CMDP did not provide direct assistance to growers for on-farm restructuring. But the project activities encouraged growers to reduce their dependence on processing fruit by changing their mix of citrus tree varieties. They were also encouraged to improve their orchard management practices in order to reduce the amount of low grade fruit that was used for concentrate.

The program was introduced as a catalyst for a change in behaviour and to address areas of perceived market failure. The government did not accept the view that extra direct assistance was necessary for the effects of the policy reform. The implicit assistance from the lengthy phase-in period was considered to be sufficient help for growers facing adjustment decisions.

Some growers were disappointed about the lack of direct assistance in the CMDP (PC 2002). Questions were raised about the benefits of directing the funds to advisory service providers (i.e. consultants, marketing experts, etc) who were not facing the pressures for change. There were also doubts about how the projects would improve the competitiveness of growers.

However, when the CMDP was established there were other programs that offered direct assistance for adjustment purposes. Growers could apply for restructuring assistance through the *Rural Partnership Program (RPP)*. In 1995 there were 12 RPPs operating with a general objective of promoting economic change in regional areas. Three programs were relevant to the citrus industry:

- *Kickstart Sunraysia RPP* (May 1997 to May 2001) – A\$10.1 million over 4 years;
- *Riverland RPP* (March 1999 to December 2002) – A\$5 million over 4 years;
- *MIA PowerPACT RPP* (July 2001 to July 2004) – A\$5 million over 3 years.

The content of individual RPPs varied. In general they offered financial help for preparing business plans, training activities and farm restructuring initiatives. A business plan was a prerequisite for most forms of RPP assistance. It required applicants to assess the profitability of their farm, personnel skill levels and ways to improve their financial position:

- the aim of business plan was to encourage a focus on the options for change.

The three RPPs provided grants for farm redevelopments that would improve productivity and farm profitability (AFFA 2003). For citrus growers this included funding for replanting trees and the adoption of new harvesting technologies. The *Kickstart* and *Riverland* programs also provided funding to update irrigation systems.

The *Kickstart RPP* offered a grant of up to A\$20,000 for redeveloping the first 2 to 4 ha of a farm (PC 2002). Eligibility was restricted to farms of between 8 and 25 ha. The *PowerPACT RPP* offered a grant of up to A\$15,000 for the same purpose with no farm size eligibility criteria. In both cases the grant could not exceed 25% of total redevelopment costs. The *Riverland RPP* offered a grant of up to A\$5,000 for the first 2 ha of farm redevelopment.

The *Kickstart* and *PowerPACT* programs also offered assistance for land purchases. *Kickstart* offered an interest rate subsidy of up to 50% for the cost of land purchases by farms under 15 ha. *PowerPACT* offered annual grants of up to A\$20,000 for two years with no farm size eligibility condition. There was no property purchase scheme in the *Riverland RPP*.

The programs contained some additional direct assistance measures:

- training grants for growers (*Kickstart RPP*);
- grants to raise the export profile of regional products (*Riverland RPP*) – up to 90% of the cost of export marketing activities with a maximum grant of A\$5,000; and
- grants for growers to benchmark their business (*PowerPACT RPP*) – up to A\$800 over a two year period for up to 80% of the total cost.

RPP assistance was potentially available to all types of farms within the designated region. Citrus growers were assessed for assistance grants along with other farmers. The exception was the *Kickstart* program which was targeted at farms of 25 ha or less (PC 2002).

Program budget constraints imposed a cap on the amount of assistance. It limited the number of grants that could be offered and applications were generally over-subscribed. To obtain a grant the farm business plan had to demonstrate a need for financial assistance. It also had to show the farm development or expansion would be a profitable business proposition:

- RPP assistance obtained by citrus growers was less than A\$2 million (PC 2002).

The RPPs were designed to work in conjunction with general assistance programs in the AAA package. For example, citrus growers could apply for *FarmBis* training grants. This option was not available to producers who received training grants through the *Kickstart RPP*.

Growers could also access the *Farm Help* program for short term welfare support and exit assistance. The standard asset and income tests applied to all applications. The exception was the *Kickstart RPP* which offered an extra A\$15,000 in exit assistance to farmers eligible for a *Farm Help* re-establishment grant.

Post-reform citrus industry adjustment

Reduced protection exposed the industry to greater competitive pressures. Growers that focused on processing fruit had to improve their financial management skills. They had to manage the pricing risks associated with changes in exchange rates and world market prices as well as the annual fluctuations in domestic supplies:

- for example, an appreciation (depreciation) of the \$A reduced (increased) the price of imported FCOJ with a corresponding effect on the price of processing fruit.

The assistance measures helped growers adjust to the market conditions. All growers gained some transitional assistance from the phased approach to reform. The CMDP also contributed to the adjustment process. A review of the program concluded that it had laid some foundations for long term industry growth (Hassall & Associates 1999).

The contribution of RPP assistance was minimal because of limited funding and eligibility conditions for redevelopment and property purchase grants. A review of the *Kickstart RPP* found the requirement for business plans had raised awareness of the need for improved management skills (PC 2002). It also noted that many recipients of RPP restructuring assistance had accelerated existing plans for farm redevelopment.

The *Farm Help* program had very little effect on industry adjustment. It was targeted at producers in serious financial difficulties by the eligibility conditions and the net farm assets test on the amount of assistance. This indicates that the change in market conditions did not force large numbers of growers into a financially unviable position.

Industry adjustment pressures were expected to lead to a reduction in the number of growers. It is difficult to get an accurate picture of the adjustment that occurred but there is evidence of change (PC 2002). Some growers diversified into other products and some chose to either exit the industry or to retire from agriculture altogether.

The available data suggest there was a reduction in the number of citrus growers during the 1990s. In 1993-94 there were around 3,750 enterprises involved in citrus production. By 1997-98 there were around 3,100 establishments, a decline of approximately 15% over four years (PC 2002). The consolidation in the number of growers was reversed in later years:

- by 1999-00 the number of establishments engaged in citrus production had increased to around 3,450 farms.

The limited change in enterprise numbers reflects the structural characteristics of the citrus industry. Most small and medium sized growers did not solely rely on citrus for household income. Many growers were diversified into grapes, stone fruits, apples and pears, vegetables and nuts. This limited the impact of the change in market conditions on farm profitability:

- lower prices for processing fruit affects returns for a portion of the citrus crop;
- the impact on farm income is diluted by higher returns for fresh fruit;
- it is further diluted if the farm enterprise is diversified into other products.

The adjustment response involved important on-farm changes by those that remained in the industry. The initial response was to reduce the dependence on the FCOJ market by focusing on exports (table 12). A shift towards higher valued fruit sales helped to alleviate the effects of import competition on average returns:

- in 1999-00 the fob export price for navel oranges was A\$1,265/tonne;
- the average wholesale value for all navel fruit sales was A\$750/tonne;
- the average wholesale value of valencia fruit sales was around A\$400/tonne;
- the market price of imported FCOJ was around A\$150/tonne on a fresh fruit basis.

12. Citrus industry trade performance

| Year ending 30 June | | 1987-88 * | 1992-93 * | 1997-98 | 2002-03 ** |
|----------------------------------|-------------|-----------|-----------|---------|------------|
| Imports of orange produce | | | | | |
| Fruit imports *** | '000 tonnes | 7 | 6 | 13 | 9 |
| FCOJ imports **** | '000 tonnes | 14 | 64 | 229 | 378 |
| - market share ^ | % share | 4.8 | 14.2 | 47.0 | 57.7 |
| World FCOJ price ^^ | A\$/t | 3 338 | 1 206 | 1 288 | 1 496 |
| Market price of FCOJ imports ^^ | A\$/t | 4 547 | 1 595 | 1 555 | 1 807 |
| Exports of orange produce | | | | | |
| Juice exports **** | '000 tonnes | 15 | 11 | 21 | 31 |
| Fruit exports *** | '000 tonnes | 48 | 82 | 117 | 133 |
| - navel fruit | % share | 37.5 | 43.4 | 62.9 | 75.9 |
| - unit value of navel exports | A\$/t fob | .. | 768 | 1 044 | 1 178 |

* Trade policy reform implemented in July 1988.

Sources: ACG 2004; ABARE 2004a; FDC 2004; ABS 2004.

** Widespread drought conditions.

*** Includes fresh fruit and dried produce.

**** Fresh fruit equivalent - 1 tonne of FCOJ = 13 tonnes of fruit, 500 litres of single strength juice = 1 tonne of fruit.

^ Imported FCOJ share of market for processed orange products - includes fresh and processed juice.

^^ Average fob value of FCOJ exports by Brazil, 65 degrees Brix, adjusted for exchange rates.

^^^ World price adjusted for exchange rates, 15% margin for transport & handling and import tariffs.

The industry's export performance improved substantially after the reform was introduced in 1988-89. Exports of fresh fruit increased from 48 kt in 1987-88 to 133 kt in 2002-03. The export growth was for higher valued navel fruit. In 2002-03 navel oranges accounted for about three quarters of total export sales (table 12).

Management changes and improved quality control throughout the supply chain were key factors in the improved export performance (Edmonds 1997). Initiatives to address trade access issues in markets such as Japan and Korea created new export opportunities. These developments were encouraged by CMDP projects.

The CMDP assistance shaped the adjustment decisions of some growers. It encouraged an export focus and a shift to production of navel fruit. The risk with this type of assistance is that it can limit the consideration of other adjustment options – diversification, industry exit. It also implies policy makers are able to judge the best course of action for the industry.

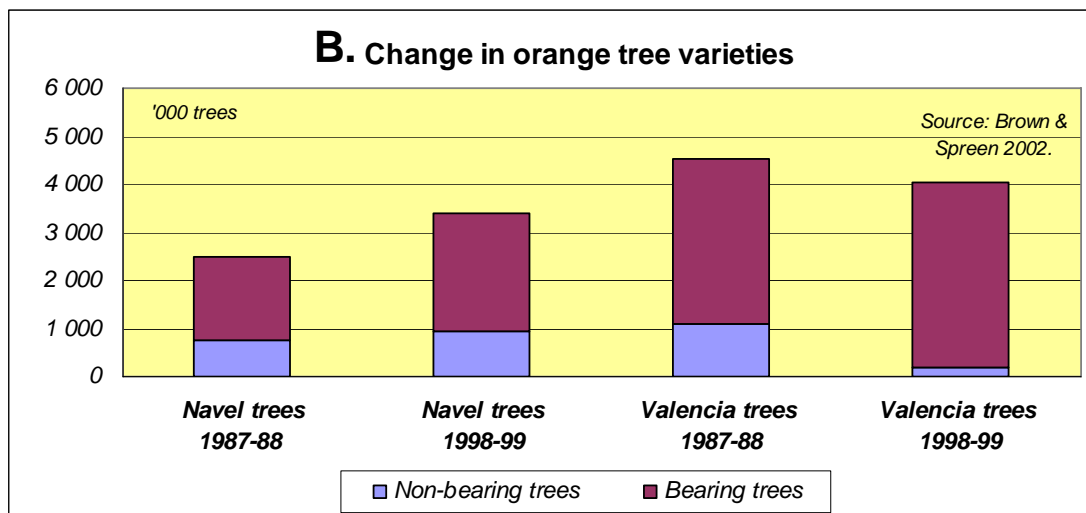
The long term success of the CMDP strategy will depend on export market access conditions and industry price competitiveness. As exports expand navel growers will be more exposed to the competitive pressures of the world market. It will require improved financial management skills to manage the pricing risks from changes in market conditions and exchange rates.

In 2003-04 there was a decline in export sales. A currency appreciation reduced the price competitiveness of Australian fruit in overseas markets. Export pricing decisions have to adjust to exchange rate changes and competition from other suppliers in order to maintain a market presence. This can have a flow on effect for returns on the domestic market.

In developing a stronger export focus the industry has established the conditions for longer term sales growth. Opportunities for growth in domestic fresh fruit sales are limited and there is strong competition from imports in the processing fruit sector. In the post-reform period FCOJ imports increased in line with lower Brazilian export prices:

- by 2002-03 FCOJ imports had reached 378 kt;
- on a fresh fruit basis imports accounted for 58% of the processing fruit market.

A longer term adjustment response to the competitive pressures from imports has involved farm redevelopment. The composition of the crop has shifted towards navel fruit. The CMDP initiatives encouraged growers to change the mix of tree varieties and reduce the dependence on the processing fruit sector. New plantings have favoured navel varieties (chart B).



On-farm changes have gradually increased the contribution of navel fruit to the total orange crop. Between 1987-88 and 1998-99 the stock of non-bearing navel trees rose by 21% and the stock of non-bearing valencia trees declined by more than 80%. Over the same period the proportion of navel trees in the total tree stock increased from 35% to 45%.

Orchard redevelopment is a slow process. There is a 6 year time lag before citrus trees reach a fruit bearing age and it takes new trees 15 years to reach maximum yields. By 2002-03 navel oranges supplied about 47% of the total crop (table 13). This is considerably higher than the 33% crop share just before the trade reform was implemented.

Improved quality control and the change in the composition of farm output and has helped to strengthen the financial position of growers. It has reduced the effect of import competition on average returns. Less fruit is being directed into the processing sector and navel prices are significantly higher than the prices received for valencia fruit:

- in 1999-00 the average price of navel fruit in the Murray Valley region was around A\$595/tonne (PC 2002).
- the average price for valencia fruit was A\$205/tonne.

There has been a gradual increase in the proportion of the crop that is sold as fresh fruit. In 2002-03 processing fruit accounted for 49 % of the total crop (table 13). This compares with a 60% crop utilisation rate in 1987-88. Domestic supplies of processing fruit are mostly used for fresh juice (NFC):

- recent estimates suggest around 15% of the total crop is used for FCOJ in direct competition with imports (PC 2002).

The sale of fruit for FCOJ has become a market of last resort. Some lower quality fruit is used for concentrate and the amount fluctuates with changes in seasonal conditions. At the same time many growers have made improvements in on-farm quality control. This has reduced the amount of downgraded fruit that is used for concentrate.

The improvement in on-farm quality control is evident in the utilisation of the navel crop. Between 1987-88 and 2002-03 the navel crop has increased substantially but the amount of navel processing fruit has declined. The proportion of the navel crop used for processing fruit has declined from 39% to around 14%:

- navel growers have improved their orchard management skills and QA programs have improved the industry's approach to fruit handling and distribution.

The growth in fresh fruit sales has been driven by increased exports. In 1987-88 export sales were less than 10% of the total crop. By 2002-03 exports accounted for 21% of the total crop. The focus on export sales has been an important adjustment response to the competition from FCOJ imports (Brown & Spreen 2002).

A request for further assistance

Concerns about the removal of import protection were overly pessimistic. The industry's performance since the late 1980s does not indicate a long term contraction has occurred:

- total gross value of production (GVP) has increased from A\$151 million in 1987-88 to A\$337 million in 2002-03 (ABARE 2004b);
- over the same period per unit GVP increased from A\$306/tonne to A\$562/tonne.

13. Post-reform citrus industry adjustment

| Year ending 30 June | | 1987-88 * | 1992-93 * | 1997-98 | 2002-03 ** |
|----------------------------------|-----------------------|------------|------------|------------|------------|
| Total orange crop | | | | | |
| Processing fruit | '000 tonnes | 293 | 397 | 279 | 309 |
| | % share of total crop | 60.3 | 57.5 | 49.3 | 48.8 |
| Export sales *** | '000 tonnes | 48 | 82 | 117 | 133 |
| | % share of total crop | 9.9 | 11.9 | 20.7 | 21.0 |
| Total | '000 tonnes | 486 | 691 | 566 | 633 |
| Navel orange crop | | | | | |
| Processing fruit | '000 tonnes | 63 | 78 | 52 | 40 |
| | % share of navel crop | 38.9 | 36.6 | 24.8 | 13.5 |
| Export sales *** | '000 tonnes | 18 | 36 | 74 | 101 |
| | % share of navel crop | 11.1 | 16.7 | 35.1 | 34.2 |
| Total | '000 tonnes | 162 | 213 | 210 | 296 |
| - share of total crop | % share | 33.3 | 30.8 | 37.1 | 46.8 |
| - share of exports *** | % share | 37.5 | 43.4 | 62.9 | 75.9 |
| Gross value of production | A\$m | 151 | 215 | 258 | 337 |
| Unit value of production | A\$/t | 306 | 344 | 516 | 562 |

* Trade policy reform to reduce import protection implemented in July 1988.

Sources: ABARE 2004a, 2004b; ACG 2004.

FCOJ import tariffs were progressively reduced from 35% in 1988-89 to 5% in 1996-97.

** Widespread drought conditions.

*** Includes fresh fruit and dried produce - excludes exports of juice products.

Increased competition from imported FCOJ has required growers to consider their situation and make changes to improve their financial position. Some producers have left the industry and others have become more diversified. Growers have made on-farm adjustments in fruit varieties and orchard management to limit the impact on average returns:

- this adjustment has occurred with a phased reduction in import protection and limited assistance for growers through the *Rural Partnership Program*;
- there was transitional assistance that shaped individuals adjustment decisions.

Growers have adjusted to a substantial change in market conditions primarily driven by world pricing developments. There has been not been a long term decline in output despite the strong growth in FCOJ imports. Instead the industry's export performance has improved and growers have reduced their dependence on domestic sales of lower priced processing fruit.

Industry concerns about the affects of import competition on market returns re-emerged in the post-reform period. In 2000-01 there was a substantial fall in average returns which was caused by three market related developments:

- the valencia crop was unusually large;
- a sizeable proportion of the navel crop was unsuitable for export as fresh produce because of poor quality and small sized fruit; and
- world prices declined because of increased exports of Brazilian FCOJ.

These developments increased the domestic supply of processing fruit. Lower average returns raised concerns about the financial position of growers in a market environment of negligible import protection. The industry made a request for short term assistance with a structural adjustment package worth A\$60 million over 3 years (ACG 2001).

The proposal involved funding for a domestic marketing campaign for valencia fruit and exit assistance for a tree-pull scheme. The exit scheme was to help growers who wished to leave the industry but remain on their farms. It proposed increasing the maximum re-establishment grant in the *Farm Help* program from A\$45,000 to A\$115,000.

The package included a request for farm restructuring initiatives to encourage re-development and expansion. This involved subsidies for purchasing and planting new trees, subsidies to change tree varieties and a subsidy for the cost of seven years of lost production from tree replanting. Other initiatives included grants to acquire land for farm expansion purposes and grants for adopting new technologies, upgrading machinery and training.

The industry believed the circumstances required some form of temporary import protection. WTO rules allow temporary assistance to be used in situations where an industry is seriously injured as a direct result of increased imports. The government's response was to establish a public inquiry to investigate the case for adjustment assistance (PC 2002).

A Productivity Commission (PC) inquiry found the majority of growers were not specialist producers solely dependent on citrus for household income. It also found that many citrus growers were profitable and had successfully adjusted to the earlier trade reforms and the changes in market conditions.

The PC did not support the case for industry specific adjustment assistance. It found the financial problems affecting some growers were a temporary adjustment issue related to a change in market conditions. The abnormal market conditions did not reflect a persistent (long term) structural adjustment issue. The final report noted that:

- it was not the role of government to provide adjustment assistance to offset the business risks associated with agricultural production;
- the AAA general assistance programs were considered to be the most efficient and equitable way of providing targeted adjustment assistance in this situation.

The PC inquiry also assessed the case for a WTO safeguards investigation. The government was advised that temporary trade barriers would be an ineffective response to the situation. Only a very high tariff or a highly restrictive import quota would have a significant effect on grower incomes. It would have very little effect on returns from sales of fresh fruit and juice.

The government was also advised that temporary import protection was likely to delay industry restructuring. This is because trade barriers are a blunt policy instrument. They are not the most suitable policy response to short term adjustment issues.

A tariff or tariff-quota would not provide targeted adjustment assistance. All growers would receive assistance including the profitable producers who had already adjusted to the market conditions. Assistance provided through a trade barrier would also dilute the incentive for those under financial pressure to make appropriate restructuring decisions:

- the temporary assistance would be provided through market returns;
- it would distort the market signals on the need for change.

The Commission did not support or reject the industry request for a formal WTO safeguards inquiry. The final report noted that the typical policy response to a successful investigation (higher tariffs) was unlikely to alleviate the financial problems faced by some growers. The government accepted this advice and there was no WTO safeguards investigation.

5. Policy reform in the pig meat industry

The Australian pig meat industry has had a strong historical focus on supplying fresh and processed meat products to the domestic market. The industry developed with minimal direct linkages to world market conditions. Exports were limited and producers were sheltered from import competition by quarantine regulations that restricted trade to canned ham products:

- Sanitary-Phytosanitary (SPS) requirements prevented chilled and frozen imports from competing with domestic output.

Industry developments during the 1990s provide an example of policy reform to a trade restriction based on quarantine access conditions. In 1990 the government relaxed the SPS requirements for imports of frozen uncooked pig meat from Canada. Farmers were aware there could be a change in market conditions because the decision required an import risk assessment to be prepared.

The industry was fully exposed to import competition for the first time. Processors could potentially use imports to supplement domestic supplies of ham during the Christmas peak in demand. SPS access conditions were further relaxed in the mid 1990s with the acceptance of chilled cuts and cooked pig meat products.

The reform was implemented overnight. This meant there was no intention to provide implicit transitional assistance for farmers through a phase-in mechanism. However, pig farmers were not immediately exposed to the full effects of the reform because of competitive conditions in the processing sector. Eventually processors took advantage of the price competitiveness of imports in response to higher prices for domestic pig meat.

In 1996 competition from imports reduced the seasonal price premium for legs of ham. The alignment of market conditions to import parity pricing coincided with a period of lower beef prices. Industry concerns about the subsequent decline in average returns led to requests for adjustment assistance and protection from imports.

Transitional assistance measures were introduced in 1997 and 1998 through a A\$24 million industry restructuring package. These assistance measures were implemented several years after the initial change in market access conditions. The package included indirect assistance that shaped the adjustment decisions of individuals. A public inquiry was also established to investigate the case for WTO safeguard actions against imports:

- inquiries in 1992 and 1995 had found imports had little effect on domestic prices.

The indirect assistance was used to encourage the industry to develop a stronger export focus. Assistance was provided for processing efficiency improvements and for projects to improve industry competitiveness and develop export opportunities. Direct assistance included training activities for producers and an exit program for farmers in financial difficulty.

Industry claims of serious injury from increased imports were supported by a Productivity Commission (PC) investigation of WTO safeguard actions (PC 1998). However, temporary import protection was not provided. The government accepted the PC advice that alternative targeted assistance measures were a more effective way of facilitating industry adjustment.

Pre-reform developments in the pig meat industry

In the late 1980s the pig meat industry was a supplier of fresh meat and processed products (i.e. bacon, ham and smallgoods) to the domestic market. Producer returns were largely unaffected by changes in world pig meat prices because of limited trade linkages. Specialist pig meat processors had no interest in developing export sales and quarantine regulations limited the import trade to canned meat products.

It was a production driven industry predominantly located in the major grain growing regions of eastern Australia. Profitability was determined by grain costs and the price competitiveness of other meat products such as beef, lamb and poultry. The industry was largely composed of small scale family farms. Most producers were non-specialist suppliers with other sources of farm income such as grain.

Market conditions were not conducive to the development of an internationally competitive industry. The output response of non-specialist producers was highly responsive to short term changes in pig meat returns. The fluctuations in output amplified the cyclical changes in industry profitability that was linked to changes in domestic meat prices:

- fluctuations in world beef prices affected farm level adjustment in the pig meat industry through changes in consumer demand for alternative meats.

There had been substantial structural change in the industry in response to changes in markets conditions. The number of producers had declined from around 25,000 establishments in mid 1975 to around 6,850 establishments by mid 1990 (table 14). Many small scale non-specialist producers left the industry in periods of difficult market conditions. The remaining producers significantly improved the physical performance of their pig enterprise.

Farm level changes included scale expansions, increasing feed rations and efficiency gains in the use of secondary inputs. Breeding herd sizes increased from 12 sows per farm in the mid 1970s to 48 sows per farm in 1990. This partially reflects the retirement of small scale non-specialist producers. It also reflects herd expansions by specialist producers.

14. Industry adjustment before the pig meat policy reform

| Year ending 30 June | | 1974-75 | 1979-80 | 1984-85 | 1989-90 |
|-------------------------------|--------------------|---------|----------|----------|----------|
| Number of farms * | <i>number</i> | 24 994 | 19 279 | 11 159 | 6 847 |
| | <i>change</i> | .. | -5 715.0 | -8 120.0 | -4 312.0 |
| Pig meat production ** | <i>'000 tonnes</i> | 175.1 | 219.6 | 260.1 | 317.1 |
| | <i>% change</i> | .. | 25.4 | 18.4 | 21.9 |
| Output per farm ** | <i>tonnes</i> | 7.0 | 11.4 | 23.3 | 46.3 |
| | <i>% change</i> | .. | 62.6 | 104.6 | 98.7 |
| Sow herd size *** | <i>sows/farm</i> | 12 | 18 | 30 | 48 |
| | <i>% change</i> | .. | 46.7 | 63.4 | 62.0 |
| Meat yield ** | <i>kg/head</i> | 50.8 | 56.1 | 57.9 | 64.2 |
| | <i>% change</i> | .. | 10.4 | 3.2 | 10.9 |

Partial relaxation of SPS import requirements was implemented in August 1990.

Source: ABS 2004.

* Total number of establishments with breeding and/or non-breeding stock as at 31 March.

** Production expressed on a dressed weight basis.

*** Based on total number of establishments and total inventory of sows and gilts intended for breeding.

Pig meat production increased by more than 80% and there were substantial gains in per farm output. In 1989-90 average output levels had reached 46.3 tonnes per farm compared with 7 tonnes in 1974-75. The growth in per farm output was partly driven by improved breeding herd management which had increased births per litter and reduced mortality rates (PC 2005).

There were gains in livestock performance from better feed management and stock selection. These changes improved the feed-to-meat conversion performance of the pigs retained for meat production. The rate of weight gain improved and meat yields increased. By 1989-90 average slaughter weights had increased by 26% to 64 kg per head.

Despite these changes the industry remained dominated by small scale producers. At the end of 1992 there were just 84 producers with sow herds of over 400 head. Some of these larger scale producers were vertically integrated to stockfeed and/or manufacturing operations:

- there were around 5,830 pig meat producers at the end of 1992;
- almost three quarters of those producers had breeding herds of less than 50 head.

Pig meat policy reform

In the late 1980s the Canadian Government questioned the scientific justification for the ban on imports of unprocessed pig meat. The Australian Government subsequently announced an in principle decision to relax the SPS requirements for pig meat imports. The decision was subject to an AQIS (Australian Quarantine Inspection Service) investigation of the disease risk associated with Canadian imports:

- AQIS handles import access requests that relate to the WTO SPS agreement;
- the SPS agreement requires scientific evidence of disease risks to ensure quarantine restrictions are not operating as a non-tariff barrier (NTB) to trade.

In mid-1990 AQIS announced the revised market access conditions for imports from Canada and the south island of New Zealand. The change in SPS requirements was limited to imports of frozen uncooked pig meat. Access conditions were modified in 1992 with a requirement for imports to be boned-out prior to shipment and to be used for processing in Australia:

- there were country specific protocols for Canadian and New Zealand imports;
- the ban on uncooked imports from all other sources remained in place.

Producers were aware of a potential change in market conditions before they were announced but there was considerable uncertainty about the implications for market prices. The reform gave processors an opportunity to use imported frozen legs as an alternative source of supply for ham during the Christmas demand peak.

The initial response to the availability of imports was limited. Some product was imported but seasonal price premiums for legs of ham continued for several years (table 15). Competitive pressures from lower priced imports were weak as some of the major processors did not use imports. They had commercial arrangements with pig producing operations (PC 1988).

Some of the smaller, independent processors took advantage of the price competitiveness of imports. They began using imported frozen legs in processing ham for the Christmas period. In 1992 imports of less than 10 kt coincided with a 9% fall in pig prices. The industry claimed the imports were subsidised and the cause of the decline in prices (Ronan 1999):

- the industry initiated an anti-dumping case against Canadian imports.

15. Competition from imported pig meat

| Year ending 30 June | Total imports * | | Domestic consumption ** | | Import market share |
|---------------------|-----------------|----------|-------------------------|----------|---------------------|
| | '000 tonnes cwe | % change | '000 tonnes cwe | % change | % share |
| 1989-90 | 1 | .. | 313 | .. | 0.5 |
| 1993-94 | 5 | | 344 | | |
| 1994-95 | 7 | 50.0 | 353 | 2.6 | 2.0 |
| 1995-96 | 7 | -7.2 | 335 | -5.1 | 2.0 |
| 1996-97 ^ | 16 | 141.6 | 344 | 2.8 | 4.6 |
| 1997-98 | 16 | 1.9 | 360 | 4.7 | 4.5 |
| 1998-99 | 25 | 55.5 | 376 | 4.4 | 6.7 |
| 1999-00 | 58 | 130.8 | 375 | -0.3 | 15.6 |
| 2000-01 | 42 | -28.7 | 354 | -5.7 | 11.8 |
| 2001-02 | 71 | 70.0 | 360 | 1.8 | 19.7 |
| 2002-03 | 76 | 7.2 | 416 | 15.4 | 18.3 |
| 2003-04 | 97 | 27.3 | 440 | 6.0 | 21.9 |

Partial relaxation of SPS import requirements was implemented in August 1990.

Source: APL 2004.

* Assumes average carcass weight conversion factor of 1.6 * shipped weight.

** Estimate of apparent consumption derived as domestic supplies - exports + imports.

^ Market returns for processed pig meat aligned to world price during 1996 pre-Christmas period.

In November 1992 an inquiry by the Australian Customs Service found there was 'no injury' in the anti-dumping case (PC 1998). The industry appealed but the original findings were upheld by the Anti-Dumping Authority (ADA). Both inquiries found the import volume was too small to have a significant effect on producer returns and the seasonal price peak:

- in 1991-92 imports accounted for less than 3% of total consumption;
- other market related developments had contributed to the decline in prices;
- pig meat production had increased at a time when beef prices were declining.

The policy reform continued with a further change in import access conditions in mid 1996. AQIS announced the acceptance of chilled boneless cuts from Canada under the same access conditions. There were two further changes in late 1997. Cooked pig meat products were accepted from Canada and access was granted for boneless cuts from Denmark:

- the access for chilled cuts had little effect on the demand for imports as processors preferred to use lower price frozen cuts in manufactured products.

Post-reform developments in the pig meat industry

In 1996 there was a structural shift in pricing conditions on the domestic market. Processors who had previously used local supplies took advantage of the cost competitiveness of imports because reduced availability had raised the price of domestic output (PC 1988). The growth in imports caused the price of legs to become aligned with import parity pricing.

There was a direct competitive effect on returns for pig meat used in manufactured products such as bacon, ham and smallgoods. Imports were used in the manufacturing sector because market access conditions required the product to be cooked upon arrival. The seasonal price premium for legs of ham sold during the Christmas peak in demand was reduced:

- the processing sector was now fully exposed to changes in world prices.

Market returns for sales of fresh pig meat were indirectly affected by the competition from imports. Primal cuts (i.e. shoulders, middles, legs) from a pig carcass could be sold as fresh meat or used in manufactured products. Some of the domestic product used in manufacturing was displaced by imports and redirected into fresh meat sales.

In 1997 the saleyard price of pigs declined by 12% (table 16). This was followed by a further price fall of 18% in 1998. There were widespread concerns about the financial pressures on producers. The industry believed the increased imports were the cause of the price slump and made a request for import protection.

The growth in imports was a contributing factor but other factors also played a role (ABARE 1998b). In 1997 there was an extra 8 kt of imports circulating in the market followed by a 3 kt reduction in 1998. Despite the growth imports were less than 7% of total consumption. The displacement effect of higher imports on returns from fresh meat sales was limited. It did not fully explain the extent of the price fall.

The industry developed a number of proposals for adjustment assistance during this period. An application was made for *Exceptional Circumstances* (EC) assistance. In mid-1998 the *Rural Adjustment Scheme Advisory Council* (RASAC) assessed the application and found the industry situation did not meet the EC criteria (RASAC 1998):

- it concluded the industry circumstances were a market adjustment to an ‘oversupply’ situation and rejected the request for EC assistance measures;
- pig meat production had increased by 3% in 1997 and 7% in 1998.

16. Pig meat policy reform and the change in market conditions

| Year ending 31 December | | 1996 | 1997 | 1998 | 1999 | 2000 |
|--|-----------------|--------|--------|--------|--------|-------|
| Market conditions for pig meat | | | | | | |
| Price of pigs * | Ac/kg dw | 2.47 | 2.19 | 1.80 | 2.16 | 2.49 |
| | % change | 13.4 | - 11.6 | - 17.7 | 20.1 | 15.3 |
| Price of imports ** | Ac/kg dw | 2.50 | 2.54 | 2.30 | 1.95 | 2.39 |
| | % change | 9.3 | 1.9 | - 9.5 | - 15.5 | 23.0 |
| Production | '000 tonnes cwe | 335 | 344 | 369 | 362 | 364 |
| | % change | - 7.1 | 2.6 | 7.2 | - 1.8 | 0.6 |
| Exports | '000 tonnes cwe | 11.7 | 16.5 | 25.1 | 45.1 | 55.5 |
| | % change | 23.2 | 41.0 | 52.1 | 79.7 | 23.1 |
| Consumption | '000 tonnes cwe | 340 | 349 | 364 | 365 | 380 |
| | % change | - 5.7 | 2.8 | 4.2 | 0.4 | 4.1 |
| Imports | '000 tonnes cwe | 14.2 | 22.6 | 19.6 | 48.7 | 72.0 |
| | % change | 46.4 | 59.2 | - 13.3 | 148.5 | 47.8 |
| Import market share *** | % share | 4.2 | 6.5 | 5.4 | 13.3 | 18.9 |
| Market conditions for competing meats | | | | | | |
| Price of beef ^ | Ac/kg dw | 185.4 | 190.0 | 208.2 | 233.1 | 261.8 |
| | % change | - 22.2 | 2.5 | 9.6 | 12.0 | 12.3 |
| Beef consumption | '000 tonnes cwe | 726 | 754 | 711 | 721 | 726 |
| | % change | 16.0 | 3.9 | - 5.7 | 1.4 | 0.7 |
| Meat consumption ^^ | '000 tonnes cwe | 1 878 | 1 953 | 1 969 | 1 977 | 2 080 |
| | % change | 5.4 | 4.0 | 0.8 | 0.4 | 5.2 |

Market returns for processed pig meat aligned to world price during 1996 pre-Christmas period.

Source: ABARE 2004a.

* Production weighted average of State saleyard price of pigs, dressed weight basis.

** Average unit value of imports, dressed weight equivalent - conversion factor of 1.6 * shipped weight.

*** Total consumption of beef & veal, lamb & mutton, pig meat and poultry meat.

^ Production weighted average of State saleyard price of yearlings, dressed weight basis.

^^ Total consumption of beef & veal, lamb & mutton, pig meat and poultry meat.

The industry responded with a request for temporary import protection under the WTO Safeguards Agreement. The Productivity Commission was asked to investigate the case for an import safeguard action in accordance with WTO requirements. In late 1998 the inquiry found the industry had been injured by the increased imports and that safeguard measures were justified (PC 1998).

During the inquiry the industry presented a proposal for import protection through a tariff-quota (TQ). The proposal was for TQ access of 4 kt for four years with an over-quota tariff of A\$2.00/kg. Based on the 1998 landed import price this was equivalent to a tariff of more than 85% which would be prohibitive for non-TQ imports.

The Commission considered the TQ volume to be excessively restrictive. They noted the industry had not proposed a mechanism for allocating the concessionary access. There was also no proposal to phase out the TQ. This was a requirement of the WTO Safeguards Agreement which specifies the temporary assistance measures should facilitate adjustment.

Safeguard measures provide transitional assistance to help producers adjust to a decline in market returns caused by higher imports. However, a tariff-quota is not the best mechanism to use for this purpose (PC 1998). There are issues in how to distribute market access rights and the associated quota rents. A quantitative measure also provides varying levels of assistance over the transition period which can distort the adjustment process:

- assistance from a TQ barrier varies with changes in domestic and import prices;
- a declining ad valorem tariff provides a declining rate of assistance.

The PC rejected the industry proposal for safeguard measures. Instead it recommended a temporary tariff of 10% to be phased out over two years. A tariff based safeguard measure was preferred because it was a transparent form of assistance. It would also require the industry to base their adjustment decisions on changes in world market prices.

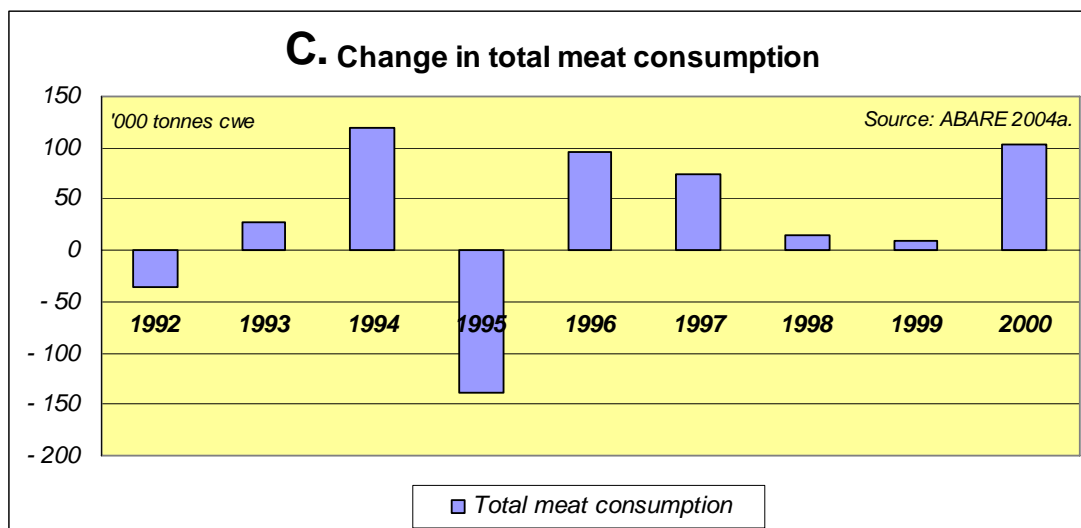
In making the recommendation the Commission questioned the benefits of a temporary tariff in facilitating industry adjustment. It suggested that targeted short term assistance measures would be a more appropriate way of achieving this objective. Exit assistance for producers in financial difficulties and other measures to encourage an increased export capacity was considered to be a preferable approach (PC 1998).

The decline in pig meat prices in 1997 and 1998 was partially due to the alignment of market returns for cooked pig meat to import parity prices. However, changes in demand and supply conditions also contributed to the price fall (table 16). This is because the value of a pig carcass is also affected by market returns for the primal cuts sold as fresh pig meat.

During this period there was a significant increase in the availability of domestic output. In 1998 production was 34 kt above the level of output in 1996. After adjusting for the growth in exports and the 5 kt rise in imports, total consumption had increased by 24 kt. The cyclical production response to higher returns in 1996 had contributed to the lower saleyard prices.

A change in domestic demand conditions was another contributing factor. In 1996 and 1997 there had been large increase in domestic meat sales (chart C). This had followed a period of reduced meat supplies and high meat prices in 1995. All livestock prices had to adjust to the increased availability of meat and the weaker demand conditions continued into 1998:

- in 1996 and 1997 the price of yearling beef was 21% below 1995 price levels;
- in 1997 total meat consumption was almost 10% above 1995 consumption levels.



The growth in imports was not solely responsible for the decline in pig prices. During the 1997-1998 period imports accounted for less than half of the increased domestic availability of pig meat. In part the lower returns reflect a cyclical change in market conditions that typically affect an industry with a lagged supply response:

- if there had been no imports in 1997 and 1998 there would still have been a reduction in market prices.

Market conditions in subsequent years indicate that concerns about the impact of the policy reform were overly pessimistic. In the year 2000 pig meat imports had increased by 52 kt on the volume of trade in 1998. The market share held by imports increased to 19% (table 16). During this period there was a substantial recovery in pig meat prices:

- by the year 2000 saleyard pig prices were almost 30% above 1998 price levels;
- the landed price of imports declined in 1999 before recovering in the year 2000.

The industry adjustment to the earlier market downturn contributed to the recovery in prices. There was minimal growth in pig meat supplies as producers adjusted output levels and some non-specialist suppliers left the industry. At the same time there was further growth in exports as the industry focused on developing alternative market outlets.

Improved domestic demand conditions also contributed to the rise in pig meat prices. Demand had strengthened because the domestic availability of meat had remained largely unchanged in 1998 and 1999. Livestock prices adjusted to the stronger demand conditions which carried over into the year 2000:

- in 1999 and 2000 the price of yearling beef was 19% above 1998 price levels.

Adjustment assistance for pig meat trade reform

The policy reform was implemented overnight and there was no transitional assistance for producers through a phase-in mechanism. But the industry was not immediately exposed to the full effects of the reform because of commercial arrangements in the processing sector. Eventually market conditions enabled imports to become an alternative source of raw materials for processed pig meat products across the industry.

The policy reform was initially limited to a single export supplying country. But the industry became linked to global market conditions because Canada was a major export supplier on world markets. The alignment of returns from processed pig meat to world parity pricing was a contributing factor behind the industry adjustment pressures in the late 1990s.

In January 1999 the government decided not to implement the safeguard measures that were recommended in the PC Inquiry. The proposed tariff rate was considered to be inadequate in the context of exchange rate movements. A higher tariff was rejected because of international trade policy considerations (Davis 1999).

The government responded to the industry developments over the 1997-1998 period with a A\$24 million *Pork Industry Restructure Package* (PIRP). The package had four programs that were developed progressively over 12 months. The strategy behind the assistance measures was to place the industry in a better position to compete with imports and to develop export opportunities (Fischer & Anderson 1998).

In November 1997 A\$11.6 million was provided for the *National Pig Industry Development Program* (NPIDP). This program was aimed at improving the international competitiveness of the industry. It provided funding for initiatives to identify market opportunities, enhance industry skills and strengthen export market development (AFFA 1999a):

- the 32 NPIDP funded projects focused on risk management, quality assurance, training, market development and communications.

Initially there were few applications for project funding under the NPIDP (Ronan, 1999). In June 1998 the guidelines for NPIDP applications were relaxed to encourage more interest in the program. The requirement for matching funds by applicants was removed and project proposals for domestic market development were accepted for consideration.

The NPIDP provided transitional assistance that shaped the adjustment decisions of farmers. It was mainly used to encourage the development of an export focus which required pigs with particular specifications. Funds were directed to advisory service providers (i.e. consultants, marketing experts, etc) for specific projects. The risk with this type of assistance is that it can limit the consideration of other adjustment options – diversification, industry exit.

Two additional programs aimed at improving industry competitiveness were also introduced. A three year *Pigmeat Processing Grants Program* (PPGP) was established. The A\$8 million program provided grants for processors to invest in new plant or to upgrade existing facilities. It was a business welfare program designed to improve the efficiency of the processing sector:

- PPGP grants were limited to 10% of the cost of new plant and equipment with a limit of A\$500,000 per company per year;
- it required a business plan to show the investment was a viable proposition;
- when the program closed 11 projects had been funded (AFFA 1998).

A second initiative was to allocate A\$1 million of the funds in the *AAA FarmBiz* program for business training activities for pig producers. The aim of *PorkBiz* program was to improve business management skills including risk management, business planning, financial management and marketing (AFFA 1999b).

In late 1998 a A\$6 million *Pork Producer Exit Program* (PPEP) was established to assist producers in severe difficulties to leave the industry. The program was available for 18 months. There were 74 successful applicants that used A\$3.1 million of the available funds.

The PPEP offered a one-off payment of up to A\$45,000 to assist retiring producers make the transition to a new vocation. The grants were subject to an assets test. The maximum grant was available to those with net assets of A\$90,000 or less at the time of exiting the industry. Assistance was reduced on a sliding scale with a cut-off point of A\$202,500 in net assets:

- the program also offered a grant of up to A\$3,000 for the cost of obtaining professional business advice on future options (AFFA 1999c).

PPEP assistance was treated as taxable income and was available to all producers. Applicants had to prove they had been a pig producer for at least two years prior to December 1998. They also had to demonstrate they could not obtain bank finance and had sought financial advice. If a grant was accepted the producer was required to exit the industry for five years:

- producers were not required to sell the farm and retire from agriculture.

Producers planning to exit the industry had the option of receiving income support for up to 12 months under the *AAA Farm Family Restart Scheme* (FFRS). The FFRS was replaced by the *Farm Help* scheme. Farmers receiving income support could still apply for a PPEP grant. But the grant was reduced by the amount of FFRS support that was paid.

Post-reform adjustment in the pig meat industry

The government assistance measures were largely focused on facilitating industry adjustment and enhancing the prospects for export sales. A review of the NPIDP found the program had helped to improve the industry's international competitiveness and to develop export opportunities (Macarthur Agribusiness 2001).

A feature of the industry adjustment in the post-reform period has been the development of a specialised export trade (table 17). Imports have gained a larger share of the domestic market. But the growth in exports has limited the impact of higher imports on the domestic supply of fresh pig meat. It has also created some opportunities for future sales growth:

- in 2002-03 exports sales of 80 kt accounted for 19% of total production.

17. The growth in pig meat exports

| Year ending 30 June | Total exports * | | Production | | Export use ** |
|---------------------|-----------------|----------|-----------------|----------|---------------|
| | '000 tonnes cwe | % change | '000 tonnes cwe | % change | % share |
| 1989-90 | 4.5 | .. | 317 | .. | 1.4 |
| 1995-96 | 5.9 | 8.6 | 334 | -4.9 | 1.8 |
| 1996-97 | 7.6 | 29.1 | 336 | 0.5 | 2.3 |
| 1997-98 ^ | 14.6 | 91.2 | 358 | 6.8 | 4.1 |
| 1998-99 ^ | 19.1 | 30.6 | 370 | 3.2 | 5.2 |
| 1999-00 ^ | 46.3 | 142.7 | 363 | -1.9 | 12.8 |
| 2000-01 ^ | 53.2 | 15.0 | 365 | 0.6 | 14.6 |
| 2001-02 | 71.2 | 33.7 | 360 | -1.3 | 19.7 |
| 2002-03 | 79.8 | 12.2 | 420 | 16.4 | 19.0 |
| 2003-04 | 61.2 | -23.3 | 405 | -3.5 | 15.1 |

Partial relaxation of SPS import requirements was implemented in August 1990.

Source: APL 2004.

* Assumes average carcass weight conversion factor of 1.2 * shipped weight.

** Share of total production used for export sales.

^ Government adjustment assistance commenced in November 1997 with further initiatives in June 1998.

18. Industry adjustment after the pig meat policy reform

| Year ending 30 June | | 1989-90 | 1994-95 | 1999-00 | 2002-03 |
|-------------------------------|-------------|----------|----------|----------|---------|
| Number of farms * | number | 6 847 | 5 140 | 3 446 | 2 859 |
| | change | -4 312.0 | -1 707.0 | -1 694.0 | - 587.0 |
| Pig meat production ** | '000 tonnes | 317.1 | 351.1 | 362.9 | 419.6 |
| | % change | 21.9 | 10.7 | 3.4 | 15.6 |
| Output per farm ** | tonnes | 46.3 | 68.3 | 105.3 | 146.8 |
| | % change | 98.7 | 47.5 | 54.2 | 39.4 |
| Sow herd size *** | sows/farm | 48 | 57 | 85 | 123 |
| | % change | 62.0 | 17.9 | 49.2 | 45.2 |
| Meat yield ** | kg/head | 64.2 | 66.0 | 72.2 | 73.1 |
| | % change | 10.9 | 2.8 | 9.4 | 1.2 |

Partial relaxation of SPS import requirements was implemented in August 1990.

Source: ABS 2004.

* Total number of establishments with breeding and/or non-breeding stock as at March 31 for 1989-90, 1994-95.

** Production expressed on a dressed weight basis.

*** Based on total number of establishments and total inventory of sows and gilts intended for breeding.

The NPIDP was a catalyst for encouraging the change in the industry's approach towards export sales. Program funding was used to support export development activities in markets such as Singapore and Japan (Truss 2000b). It was also used to facilitate the development of market alliances, quality assurance systems, export promotion and skill improvements in the processing sector (AFFA 1999a).

In 1999 an opportunity arose to supply chilled pig meat to Singapore when a ban was imposed on live imports from Malaysia. This was an important development for the industry. Australia has subsequently established a competitive position in the Singapore market for a specialised product. Proximity to the market, freedom from livestock diseases, regular transport links and favourable exchange rates were important factors in the development of this trade.

The industry has developed a specialised export capability based on a differentiated product. About 75% of Australia's pig meat exports are chilled products sold in regional markets. The industry does not have the scale efficiencies in production and processing to compete with other exporting countries in supplying frozen cuts or processed products:

- the industry has developed a capability to supply a chilled product that is a competitive alternative to fresh meat sales in selected Asian markets;
- some specialist producers have made farm level adjustments in order to supply pigs that meet the export specifications.

The long term success of the strategy behind the NPIDP assistance will require the industry to maintain a competitive presence in regional markets. Domestic pig meat prices are more closely aligned to world prices because of the competition from imports. But sustaining the export performance will depend on government efforts to improve overseas market access conditions. It will also depend on a number of issues that affect industry competitiveness:

- access to feed grains at world market prices;
- maintaining the disease free status of the industry;
- further efficiency improvements in the processing sector; and
- continuing to supply a differentiated product that meets market specifications.

Industry adjustment in the post-reform period has included changes in the pig meat processing sector. The sector has become more concentrated with the closure of several plants and the remaining processors have increased their scale of the operations (PC 2005). Some of the larger operators are more specialised and focused on export sales:

- the PPGP assistance was a catalyst for stimulating new investment and efficiency improvements in the processing sector.

Post-reform adjustment has also involved changes in farm performance. The changes were driven by the effects of the policy reform and market related developments. Since the mid-1990s market prices for pigs used in processed products have been aligned with world prices. At the same time farm profitability has been affected by:

- changes in meat demand conditions which affects returns for fresh pig meat;
- changes in feed costs during periods of adverse seasonal conditions; and
- cyclical changes in pig meat supplies.

The policy reform has not caused a long term contraction in industry output. There was a small decline in pig meat production in the mid-1990s. But since then there has been a growth trend around some short term cyclical changes in production. In 2002-03 pig meat production was almost 20% above output levels in 1994-95 (table 18). During this period imports increased their share of the domestic market to around 18%.

Pig prices have fluctuated since the mid-1990s as domestic supply and demand conditions have varied. There have been significant farm level adjustments since that time. Between 1995 and 2003 the number of pig producing operations declined by 2,281 farms. Over the same period the total breeding herd increased by 21% to around 353,000 sows.

Some small scale non-specialist producers have left the industry during periods of reduced profitability. The producers that remained have increased the scale of their pig enterprise to improve their financial performance. The average size of breeding herds has increased from 57 sows per farm in 1994-95 to 123 sows per farm in 2002-03 (table 18).

The industry is still mostly composed of small to medium scale producers. However, these producers have larger sow herds in comparison to the pre-reform period. The adjustment in farm numbers has mostly occurred among the small scale producers. Between 1995 and 2003 there was a substantial decline in the number of farms with less than 50 sows:

- piggeries with more than 100 sows accounted for 24% of the industry in 2003 compared with 17% in 1995 (APL 2003);
- in 2003 there were only 62 farms with more than 1,000 sows.

There have been improvements in the physical performance of pig farms in the post-reform period. Output per farm has increased from 68 tonnes in 1994-95 to 147 tonnes in 2002-03. This partly reflects the increased scale of operations. But it also reflects increased use of secondary inputs and productivity gains through improved herd management.

Farmers have improved their management of breeding herds. Births per litter have increased and mortality rates have declined (PC 2005). There have been gains in livestock performance through improved management of feed inputs and feeding regimes. Faster rates of weight gain and increased meat yields indicate an improvement in feed-to-meat conversion rates:

- between 1994-95 and 2002-03 average slaughter weights increased by 11%.

Import competition and the growth in exports have increased the exposure of the industry to the competitive pressures of the world market. This has required producers to improve their financial management skills. Producers have to manage the cyclical price movements caused by changes in the domestic prices of competing meats. But there are now additional pricing risks associated with changes in exchange rates and overseas market conditions.

In 2003-04 pig meat exports declined. This reflected increased competition from other suppliers and an appreciation of the \$A which reduced the price competitiveness of Australian exports. Export returns have to adjust to exchange rate changes and competition from other suppliers in order to maintain a market presence. This can have a flow on effect for producer returns and the profitability of supplying the export trade.

An additional development that has flowed from the policy reform has been a stronger focus on the supply chain issues that affect product quality. Import competition and the growth in exports have required the adoption of production processes that are aligned to specific market requirements. Producers have been encouraged to adopt the business standards specified by industry QA programs (Truss 2002a):

- the trend towards more specialised, integrated pig producing operations has encouraged this development;
- there has been a shift towards the production of leaner pig carcasses in accordance with changes in the preferences of domestic consumers (PC 2005).

Most pigs are sold through contracts that specify carcass characteristics. To compete with imports producers have to deliver a carcass that meets the specifications of manufacturers. Suppliers to the export trade are also required to meet certain specifications. These changes reflect the commercial response to the more competitive market conditions.

6. Policy reform in South Australia's rock lobster industry

The South Australian (SA) Southern Zone Rock Lobster (SZRL) industry has had a history of policy intervention for supply management purposes. Since the late 1960s there has been a regulatory regime of input restrictions and resource access controls. The industry had a strong export focus and producer returns were determined by overseas demand conditions:

- producer returns were supported by restrictions on the number of boat operators that were allowed to exploit the lobster stocks.

Industry developments during the 1990s provide an example of a policy reform involving a change in supply management conditions. The reform involved the overnight removal of open access rights to a naturally occurring resource. An effective supply management scheme was the critical factor in maintaining the industry's long term profitability:

- producers were aware of a likely change in market conditions because of extensive consultations between government and industry stakeholders.

For some time the state government had been concerned about the impact of over exploitation of lobster stocks on long term output levels. The economic performance of boat operators was declining despite limited entry to the fishery and restrictions on individual fishing efforts. The industry adjustment pressures were linked to the biological performance of the lobster stocks.

Operator returns were determined by export prices and the size of their catch. Over time the licence holders had been increasing their annual catch to improve returns. The growth in production affected the ecological sustainability of the fishery stocks which had a flow-on effect for the financial performance of boat operators.

In the mid 1980s the state government introduced reforms to reduce the intensity of the fishing efforts by individual operators. The reforms were ineffective because it had little impact on the size of the total catch. In 1987-88 exit assistance was provided in the form of a voluntary licence buyback scheme to reduce fishing capacity.

The continued pressure on industry performance resulted in a further policy change. In 1992-93 a supply management scheme based on variable catch quotas was introduced. Transferable access rights (ITQs) and restrictions on the intensity of fishing effort eventually established a more sustainable resource base:

- annual monitoring of industry performance established a mechanism for adjusting supply management conditions and changing the catch quota.

The policy reform of the early 1990s did not involve the provision of transitional assistance for boat operators. In contrast to the previous three case studies the policy change established an industry funded mechanism to facilitate producer adjustment:

- producer retirements and enterprise changes were facilitated by the buying and selling of quota access rights (ITQs);
- the cost of monitoring and managing the performance of the fishery for quota determinations was funded by annual licence fees.

Pre-reform developments in the SZRL industry

The South Australian lobster fishing industry initially developed with unrestricted access to the naturally occurring fishery stocks. In the mid-1960s lobster fishing was an expanding, unregulated year round business. Boat owners were free to harvest as much of the stock as they wished:

- management of the fishery resources was the responsibility of the South Australian State Government.

The industry had been expanding in response to strong export demand. Increased sales of lobster tails to the US market had improved average returns and encouraged more boats to enter the industry. Most of the annual catch was processed for export with the remaining body parts used for other processed seafood products.

However, there were concerns about the impact of open access on the long term sustainability of the fishery resource. In August 1967 access restrictions were imposed on lobster fishing for the first time. The SA government established fishing zones and introduced restrictions on the number of boats and lobster pots. The management conditions limited access to the fisheries to 324 boat licences (SZRLFMC 1997).

The industry was divided into two main fishing areas. The *Southern Zone Rock Lobster Fishery* (SZRLF) covered the coastal area from the Victorian border to the Murray River. The *Northern Zone Rock Lobster Fishery* (NZRLF) covered the area from the Murray River through to the Western Australian border.

Despite the introduction of access controls the biological performance of the SZRLF began to decline. Licence holders were still free to exploit the lobster stocks as much as they wished. The constraint on the number of lobster pots did not curtail individual fishing efforts. Boat owners had to work harder to achieve their desired catch and over time they were gradually increasing the intensity of their fishing effort:

- fishing yields were unaffected by the pot constraint as producers increased the number of times a pot was lifted and reset (pot lifts) during the fishing season.

In 1978 a government inquiry found there were too many boats exploiting the lobster stocks. Access controls and input restrictions had failed to address the problem of over exploitation. The long term ecological sustainability of the SZRLF was threatened and operator returns would decline unless changes were made to the management regime (SZRLFMC 1997).

The inquiry recommended reducing the number of boat operators. It proposed a licence buy back scheme to remove some fishing capacity and improve the financial position of the remaining operators. The policy proposal was not implemented. Boat and pot numbers were left unchanged and there was continuing pressure on the industry's resources.

In 1980 a seasonal (winter) closure of the SZRLF was introduced. Research had shown that winter fishing was affecting the sustainability of lobster stocks. The winter closure was as a supply restriction that limited access to a seven month period from 1 October to 30 April:

- licence holders responded by increasing the intensity of their fishing efforts in order to secure their desired catch within the restricted fishing period;
- producers earning low returns were able to off-set the adjustment pressures to exit the industry by increasing their catch.

In 1984 the SA government imposed a 15% reduction in the total number of lobster pots used by the industry. Licence holders were restricted to a maximum of 80 pots and a minimum of 40 pots. The regulatory changes were introduced to reduce the fishing efforts of individual operators and to encourage industry rationalisation.

The reduction in pot numbers failed to induce any significant rationalisation in the number of operators. Boat owners reacted to the tighter input restrictions by increasing the harvesting frequency of the remaining pots. In 1984-85 the total number of pot lifts increased by 2% despite a 15% reduction in the total number of pots:

- the average beach price of lobsters increased by 52% in 1984-85;
- there was no limit on the number of lobsters that could be caught in each pot.

Fishing licences had a significant value because of the strong returns from lobster sales on export markets. Licence holders also had a sizeable capital investment in their boats and fishing gear. These financial considerations were a disincentive for autonomous, unassisted industry retirements.

Fishery management conditions had also contributed to a reluctance of producers to retire. The opportunity for pot sales was limited by the restriction on the maximum number of pots an operator could own. In addition, as licences could only be transferred between family members there were limited opportunities for realising the value of a licence.

Continuing concerns about the long term sustainability of the lobster stocks resulted in a further change in management conditions. In 1987 the government introduced a buyback scheme to remove some fishing capacity. The scheme was as a form of exit assistance for those who wished to voluntarily leave the industry.

The exit scheme encouraged the industry adjustment that had failed to occur with a tightening of fishing restrictions in 1984. It funded the exit of 40 boat licences and 2,455 lobster pots (SZRLFMC 1997). The economic performance of the remaining operators improved. By 1992-93 the average catch rate had reached 9.1 tonnes per boat, a rise of 28% on the average fishing performance in 1987-88 (table 19).

Initially there was a lower total catch and a decline in the total number of pot lifts. This was partially due to the reduction in fishing capacity and it led to improved fishing yields. The catch rate increased from 0.78 kg per pot lift in 1987-88 to 1.0 kg per pot lift in 1992-93. The remaining producers had secured a higher pot yields with a reduced fishing effort.

However, there were continuing concerns about the longer term biological performance of the lobster stocks. During this period the beach price for lobsters strengthened because of strong export demand and the lower total catch. Between 1987-88 and 1992-93 average prices increased by 28%. This maintained the market driven incentive for boat owners to increase the intensity of their fishing efforts:

- licence holders increased the number of days they were fishing; and
- the number of pot lifts per boat steadily increased.

The policy changes that had been introduced since 1978 were primarily aimed at improving the long term sustainability of the lobster stocks for the benefit of producers. But they failed to achieve this objective because boat owners reacted rationally to the fishing restrictions and market price signals. The fishing restrictions created an incentive for producers to increase their fishing efforts in order to improve their financial position.

19. SZRL industry adjustment before the policy reform

| Season 1 October to 30 April | | 1982-83 | 1987-88 [^] | 1992-93 |
|------------------------------|-----------------|---------|----------------------|---------|
| Number of boats | number | 241 | 232 | 192 |
| | change | 0.0 | - 9.0 | - 40.0 |
| Commercial catch * | tonnes | 1 877 | 1 657 | 1 754 |
| | % change | 50.3 | - 11.7 | 5.9 |
| Output per boat | tonnes/boat | 7.8 | 7.1 | 9.1 |
| | % change | 50.3 | - 8.3 | 27.9 |
| Lobster pot lifts | '000 lifts | 2 202 | 2 131 | 1 761 |
| | % change | 23.8 | - 3.2 | - 17.4 |
| Pot utilisation rate | '000 lifts/boat | 9.1 | 9.2 | 9.2 |
| | % change | 23.8 | 0.5 | - 0.2 |
| Pot yield | kg/pot lift | 0.85 | 0.78 | 1.00 |
| | % change | 21.4 | - 8.8 | 28.1 |
| Average beach price | A\$/kg | 6.7 | 15.5 | 19.9 |
| | % change | 75.9 | 130.9 | 28.0 |

Seasonal closure introduced in 1980 - fishing allowed 1 October to 30 April.

Source: SZRLFMC 2000.

Fishery management reforms involved a total catch quota with interim ITQs in 1993-94.

ITQ allocations were finalised in 1997-98.

[^] A 15% reduction in pot numbers was imposed on all licence holders in 1984-85.

Government buy-back scheme introduced 1987-88 involved 40 licence retirements & 2,455 pot retirements.

* Total commercial catch excludes recreational catch.

Policy reform in the SZRL industry

In the early 1990s the SA government developed a proposal to maintain the lobster stocks through production controls. But some producers were unsure about the benefits of using catch quotas to manage the industry. Producer incomes would be more exposed to changes in returns caused by unfavourable exchange rate movements. Production quotas would limit the capacity of producers to maintain their income by adjusting output.

The policy reform initially involved a proposal for a competitive catch quota in the 1992-93 season. Licence holders would compete for a share of a *Total Allowable Catch* (TAC). After consultations with industry the management conditions were changed to allow for the TAC to be allocated among individual boat operators. A TAC of 1,718 tonnes was set for the 1993-94 season and divided into *Individual Transferable Quotas* (ITQs):

- the ITQs were a right to share in an industry-wide production quota;
- changes in the annual TAC would be distributed proportionally across all ITQs.

Allocation of the ITQs among the existing operators was a highly controversial issue. In the first year of ITQ quota management an interim allocation method was used to distribute the TAC. The government agreed to consult with industry and review the allocation method at the end of the 1993-94 season.

With a fixed number of lobster pots the TAC could be distributed on a per pot basis. Under this proposal each pot would have the same ITQ value. Pots would also be fully transferable between licence holders subject to the maximum and minimum licensing conditions.

This would mean the ITQs would be allocated among licence holders according to their share of the total number of pots at a specified point in time. Pot allocations could be verified from licence records. However, some operators objected to this approach because historically they had used their pots more intensively and had a higher catch history:

- licence holders with a high catch history preferred an allocation method that was based on a share of the total catch at a specified point in time.

In mid-1994 a joint committee of government and industry representatives recommended the TAC be shared equally on a per pot basis at the end of a four year transition period. The ITQ pot allocations would be based on the number of pots held at the completion of the 1997-98 season (SZRLFMC 1997). The transition period gave operators time to adjust to the pending change in the 'value' of a lobster pot.

The TAC for the 1993-94 season had been set at 1,740 tonnes but the total catch was 1,720 tonnes. For the 1995-96, 1996-97 and 1997-98 seasons the TAC was set at 1,720 tonnes. This meant the notional quota value of each pot would remain constant at 144.26 kg during the transition period. For the 1997-98 season all pots were accredited with this standard allocation of the TAC:

- since that time all pots have received a proportional allocation of the TAC;
- pots and their quota allocations (ITQs) were transferable among licensees.

SZRL industry developments in the post-reform period

The switch to a controlled access regime based on ITQs required the development of a quota management plan for the fishery. This involves annual monitoring of industry performance. Annual sustainability indicators are used to assess the biological performance of the lobster stocks and ensure the TAC is within sustainable resource limits.

Key indicators include the total catch, average lobster weights, average catch rates (kg/pod lift), pre-recruitment catch rates and egg production rates. An annual exploitation rate is used to adjust the TAC to ensure long term sustainability of the resource. Annual indicators are also used to assess the economic performance of the industry and the need for changes in the fishery management conditions (EconSearch 2005).

The *Southern Zone Rock Lobster Fishery Management Plan 1997* sets the management guidelines for the licence holders. Quota entitlements remained fixed at 144.26 kg/pot until the TAC was increased to 1,770 tonnes in 2001-02. Each licence is restricted to a maximum of 100 pots but there is a limit of 80 pots for actual fishing use.

Administration and compliance costs of managing the fishery are funded by the industry through licensing charges composed of a base fee and a per pot fee. The fees are adjusted annually to ensure the fishery management activities are fully funded. In 2000-01 the licence fees raised A\$2.2 million:

- the licence fee was A\$5,262 with a fee of A\$96 per pot (SZRLFMC 2000);
- the average cost was around A\$11,550 per operator.

The non-commercial catch is managed in conjunction with the commercial quota system. The annual recreational catch is monitored by compliance officers and is limited to a specified proportion of the total lobster stock. There are provisions for the management conditions for recreational fishing to be adjusted if the threshold is exceeded.

20. Post-reform adjustment in the SZRL industry

| Season 1 October to 30 April | | 1992-93 | 1997-98 | 2002-03 |
|-------------------------------|------------------------|---------|---------|---------|
| Number of boats | <i>number</i> | 192 | 184 | 180 |
| | <i>change</i> | - 40.0 | - 8.0 | - 4.0 |
| Commercial catch quota | <i>tonnes</i> | .. | 1 720 | 1 770 |
| Commercial catch * | <i>tonnes</i> | 1 754 | 1 680 | 1 766 |
| | <i>% change</i> | 5.9 | - 4.2 | 5.1 |
| Output per boat | <i>tonnes/boat</i> | 9.1 | 9.1 | 9.8 |
| | <i>% change</i> | 27.9 | - 0.1 | 7.5 |
| Lobster pot lifts | <i>'000 lifts</i> | 1 761 | 1 761 | 884 |
| | <i>% change</i> | - 17.4 | 0.0 | - 49.8 |
| Pot utilisation rate | <i>'000 lifts/boat</i> | 9.2 | 9.6 | 4.9 |
| | <i>% change</i> | - 0.2 | 4.4 | - 48.7 |
| Pot yield | <i>kg/pot lift</i> | 1.00 | 0.95 | 2.00 |
| | <i>% change</i> | 28.1 | - 4.6 | 110.3 |
| Average beach price | <i>A\$/kg</i> | 19.86 | 30.30 | 36.13 |
| | <i>% change</i> | 28.0 | 52.6 | 19.2 |

Fishery management reforms of total catch quota and interim ITQs in 1993-94.

Sources: SZRLFMC 2000; EconSearch 2005.

ITQ allocations were finalised in 1997-98.

Seasonal closure adjusted in 2003-04 - fishing season extended to 31 May.

* Total commercial catch excludes recreational catch.

Recreational fishing is controlled by output and input restrictions. Individuals are limited to a maximum of two pots. There are quotas on the daily catch per person and the daily catch per boat. The total number of pots available for non-commercial use across the state is restricted to 14,000 pots (SZRLFMC 2000):

- there is a registration fee of A\$50 for the first pot and A\$90 for the second pot;
- in 2003-04 there were 11,073 recreational pots in use across the state.

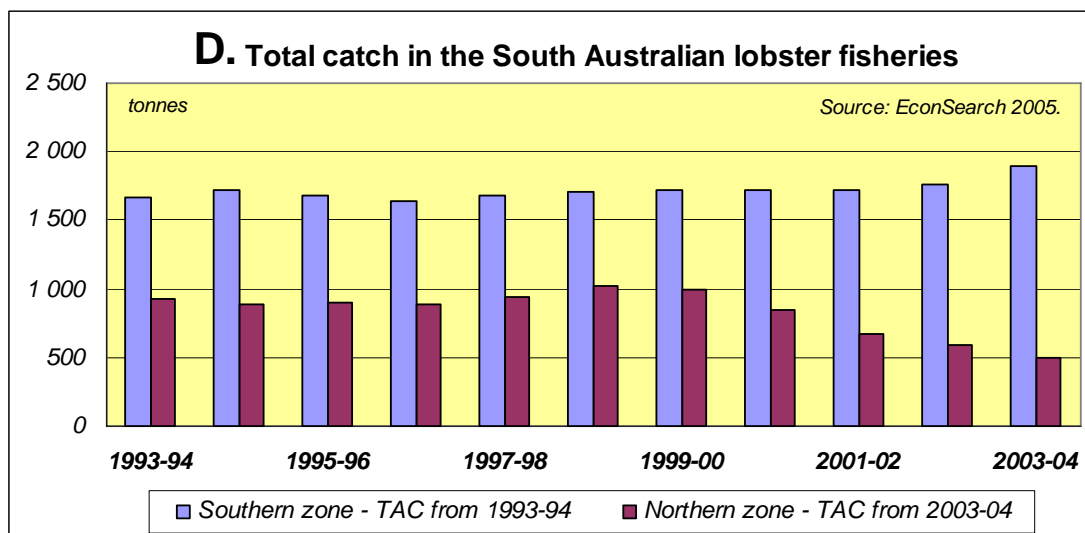
Post-reform adjustment in the SZRL industry

The biological and economic performance of SZRL fishery has improved significantly since the policy reforms were finalised in 1997-98 (Linnane et al 2005a). Performance indicators indicate the fishery is in the strongest position since 1970. Increased resource stocks have enabled the SZRL management committee to raise the catch quota:

- the TAC increased from 1,720 tonnes in 2000-01 to 1,900 tonnes in 2003-04.

Average pot yields have increased substantially in recent years (table 20). In 2002-03 each pot lift produced around 2 kg of lobsters. Average pot yields were around 1 kg/pot lift in the year before the TAC was implemented. The stronger resource base has substantially reduced the total number of pot lifts required to secure the catch.

The improved catch rate has generated significant productivity gains for boat operators during the post-reform period. Between 1993-94 and 2003-04 the average number of days required to secure the catch has declined by 34% (Linnane et al 2005a). Over the same period the total catch increased by 14% to 1,896 tonnes (chart D).



Lobster prices have strengthened in response to continued growth in export demand. This has encouraged licence holders to fully utilise the TAC. Higher output and higher returns has improved the economic performance of the industry. Licence numbers declined marginally and the increased output has strengthened the productive performance of boat owners:

- between 1992-93 and 2002-03 the average number of pot lifts declined by 49%;
- in 2002-03 average output was 9.8 tonnes/boat, a rise of 8% since 1992-93.

Developments in the lobster industry raise two points of contrast with the three previous case studies. Firstly, market conditions are different to those affecting agricultural industries such as dairy, citrus and pig meat. Producers have less control over their level of output. Industry performance is dependent on the ability of producers to harvest a naturally occurring resource in limited supply.

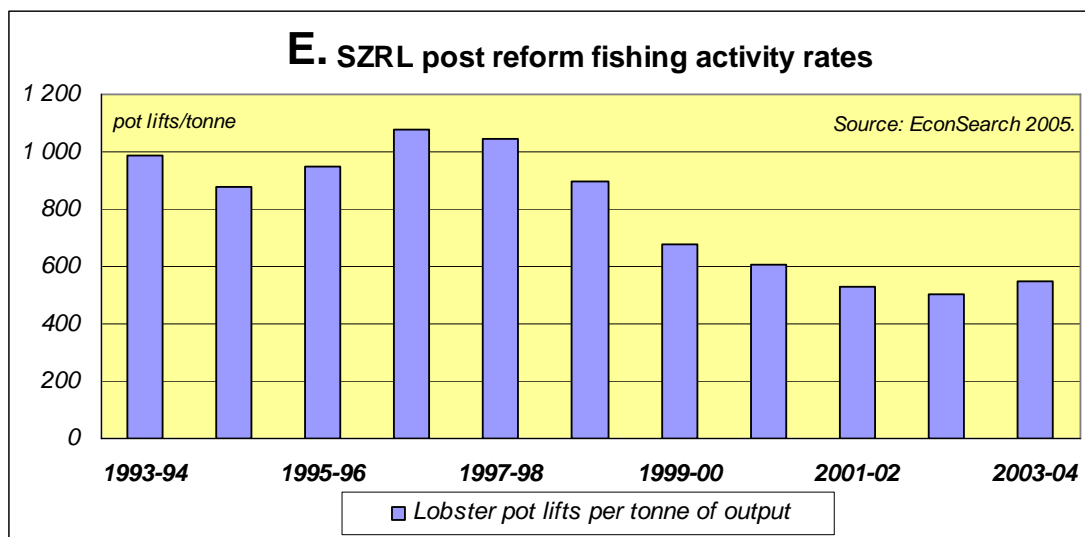
Secondly, the policy change was implemented to address an issue of resource access rights rather than to reduce support or import protection. The reform involved changing the fishery management conditions that determine individual output levels. The adjustment that occurred reflects the producer response to the policy reform and changes in market conditions.

Unrestricted access to a limited fishery resource will lead to over exploitation. There is very little incentive for individuals to operate in a way that maintains a sustainable resource base for the collective benefit of all producers. Higher market returns can encourage producers to increase the intensity of their fishing efforts and deplete the resource stocks:

- strong export returns were a key factor in the pre-reform adjustment pressures experienced by the SZRL industry.

Over time individual catches decline and operating costs rise. There is pressure for industry adjustment as the resource base is depleted and the economic performance of individual producers deteriorates. The adjustment pressures often require a reduction in the number of operators or regulatory changes to limit the rate of resource exploitation.

The SZRL policy reforms have improved the sustainability of the resource base. Output has expanded in line with a gradual improvement in the biological performance of the fishery. This has contributed to an improvement in the economic performance of licence holders.



It is interesting to compare the performance of the SZRL fishery with the Northern Zone Rock Lobster (NZRL) fishery over the post-reform period (chart D). Until recently the northern zone was a limited access fishery with input restrictions similar to those imposed in the SZRL fishery. Fishing licences and pot numbers were limited but a quota management system was not implemented until the 2003-04 season.

A comparison of output from the two zones indicates the NZRL management controls were less effective in maintaining a sustainable resource base. The total catch has been declining since 1999-00 and pot yields have declined rapidly in recent years. It reflects a deteriorating biological performance of the lobster stocks (Linnane et al 2005b):

- a TAC of 625 tonnes was introduced in the NZRL for the 2003-04 season;
- the NZRL catch was 504 tonnes, 19% below the TAC.

The SZRL industry has adjusted to the change in supply management conditions. This has occurred without any transitional assistance from the government. It has been facilitated by the policy arrangements designed to maintain a sustainable resource base. Annual assessments of the fishery performance and changes to the TAC are the primary adjustment mechanisms. These mechanisms are self-funded by the licence holders.

Quota restrictions on pot yields removed the incentive to increase the intensity of fishing efforts in response to higher returns and input restrictions. After a period of adjustment the productive performance of the primary inputs (boats and labour) improved substantially. The number of pot lifts has declined and the fishing activity rate has declined (chart E).

Higher prices due to strong export demand have also contributed to the improved industry performance. In 2002-03 more than 90% of the state wide catch was sold on export markets. Fresh lobsters are a highly valued product in Asian markets and the export trade has shifted from frozen lobster tails to live exports:

- in 2002-03 export sales of live and chilled whole lobsters accounted for 82% of total exports (EconSearch 2005).

7. Transitional assistance for policy reform

The way policy reforms are implemented is an important issue when considering the industry adjustment response. Transitional assistance may be used to facilitate the change. This will involve judgements about the relative merits of the welfare, equity and economic efficiency issues associated with the reform.

Welfare considerations may be relevant if there are producers who experience severe financial difficulties. At the same time there may be equity issues about the severity of the adjustment costs borne by producers. Economic efficiency considerations will generally relate to issues concerning the reallocation of resources that will flow from the reform.

Individuals' acting in their own self interest in response to undistorted price signals is the best way for adjustment to occur. A government intervention through transitional assistance will affect the adjustment response. If assistance is to be provided in conjunction with the reform it raises the question of the objective of the assistance and what form it should take.

The availability of general assistance measures that address welfare issues may be sufficient to facilitate the adjustment process. In other circumstances the government may decide that a specially tailored industry assistance package is necessary. Short term adjustment assistance can be provided in a number of ways:

- it could involve an explicit or implicit financial transfer to producers;
- explicit assistance could involve some form of direct payment to producers or alternatively some form of indirect assistance.

The four case studies examined some different approaches taken by Australian Governments on the question of transitional assistance for policy reforms (table 21). They have highlighted a number of issues associated with policy development for industry requests for adjustment assistance.

Transitional assistance for Australian policy reforms

Australian governments have often adopted a *phased approach* to agricultural policy reform. This approach provides some implicit transitional assistance because farmers are not required to immediately adjust to the full impact of the reform. The alternative is the *full impact (overnight) approach* where the reform is imposed in full at a specified point in time:

- this may be done with or without some form of explicit transitional assistance.

Dairy deregulation involved the *full impact approach* in conjunction with A\$1.75 billion of adjustment assistance for producers. This approach required judgements about the scale of the impact on farmer returns in moving from regulated prices to market determined prices. It also required judgements about the amount of assistance that should be provided:

- direct assistance for dairy farmers helped the adjustment process by encouraging farmers to either restructure their farm enterprise or to leave the industry;
- it was provided in place of the implicit assistance that would have been obtained if a *phased approach* to reform had been adopted.

21. Composition of selected adjustment assistance

| | Direct assistance * | | Indirect assistance ** | | Other assistance | | Total |
|--|---------------------|-------------|------------------------|------------|------------------|------------|--------------|
| | A\$m | % | A\$m | % | A\$m | % | A\$m |
| Industry specific adjustment assistance | | | | | | | |
| Dairy, 2000 | 1 754 | 87.3 | .. | .. | 255 | 12.7 | 2 009 |
| Citrus, 1994 | .. | .. | 8 | 100.0 | .. | .. | 8 |
| Pig meat, 1997 | 4 | 17.3 | 20 | 82.7 | .. | .. | 24 |
| Sugar | | | | | | | |
| - SIAP, 1998 *** | 60 | 52.9 | 53 | 47.1 | .. | .. | 113 |
| - SIRP, 2002 **** | 60 | 40.0 | 80 | 53.3 | 10 | 6.7 | 150 |
| - SIRP, 2004 ***** | 348 | 78.4 | 88 | 19.8 | 8 | 1.8 | 444 |
| General adjustment assistance | | | | | | | |
| AAA Package, 1997 | 525 | 100.0 | .. | .. | .. | .. | 525 |
| AAA Package, 2000 ^ | 380 | 100.0 | .. | .. | .. | .. | 380 |
| AAA Package, 2004 | | | | | | | |
| - Farm Help | 135 | 100.0 | .. | .. | .. | .. | 135 |
| - FarmBis ^^ | 133 | 100.0 | .. | .. | .. | .. | 133 |
| - FMDs ^^ | 930 | 100.0 | .. | .. | .. | .. | 930 |
| - other programs | .. | .. | 36 | 100.0 | .. | .. | 36 |
| Exceptional Circumstances ^^^ | 593 | 100.0 | .. | .. | .. | .. | 593 |
| Regional programs, 1997 ### | 137 | 100.0 | .. | .. | .. | .. | 137 |
| Total | 5 059 | 90.1 | 286 | 5.1 | 273 | 4.9 | 5 618 |

Based on announced budget allocations. Sources: AFFA 2003, 2005; Truss 2002b, 2004a; ANAO 2005.

* Assistance received by farmers for welfare support, exit assistance and business support.

** Includes programs for industry initiatives such as R&D, infrastructure, promotion, market development, etc.

*** Sugar Industry Adjustment Package (SIAP) involved several programs implemented at different times.

**** Sugar Industry Reform Program (SIRP) for the effects of low world prices, poor seasonal conditions and disease outbreaks. Other assistance includes A\$10m from the Queensland State Government for change management projects.

***** Supplementary SIRP - program expenditures include administration costs.

^ Includes expenditures of A\$71m from the State Governments for the FarmBis program.

^^ Includes expected matching commitment of A\$66.7m from the State Governments.

^^ Treasury estimate of taxation revenue forgone for the 5 years to the end of 2004-05.

^^^ Total payments up to December 2004 for the drought that began in 2002-03. Includes EC welfare support (ECRP), EC business assistance (ECIRS), Prima Facie Interim Income Support, Interim Income Support & Interest Rate Relief.

Includes Regional Partnership Programs (RPPs) and the Agricultural Development Partnership (ADP) program. Funding includes State Government contributions of A\$32.6m for the RPPs and A\$24.6m for the ADP program. Some funding was used for indirect assistance measures for industries in particular regions.

Citrus policy changes involved the more common *phased approach* to reform. The extended phase-in period provided some implicit adjustment assistance. Requests for additional direct assistance for producers were rejected. However, the government did provide A\$8 million of indirect assistance. It was used to fund initiatives that would be a catalyst for a change in the focus of the industry:

- indirect assistance for citrus growers has encouraged a change in the competitive positioning of the industry's output;
- the industry has developed a stronger export capability.

The pig meat reform involved the *full impact approach* in conjunction with A\$4.1 million of direct assistance that was mainly used for industry retirements. There was no direct assistance for restructuring as was the case for the dairy reform. However, the government provided a small amount of indirect assistance – A\$19.6 million – to facilitate the adjustment process.

Like the citrus program the pig meat assistance was used for initiatives that would be a catalyst for changing the focus of the industry:

- indirect assistance for pig farmers has also encouraged a change in the competitive positioning of the industry's output;
- the industry has developed a stronger export capability.

The lobster reform involved the *full impact approach* as ITQs were effectively introduced when the fishery became regulated by a total catch quota. There was no explicit transitional assistance provided to boat operators. However, continued access restrictions and controls on the number of lobster pots maintained the support for licence holders that was provided in the pre-reform period.

In recent years specially tailored assistance packages have also been provided for the sugar industry (table 21). There have been three packages which have included direct assistance for restructuring and farm retirements worth A\$468 million. The packages have also included several programs providing A\$221 million of indirect assistance:

- the sugar packages were not introduced in conjunction with specific trade related policy reforms;
- in general they were implemented to encourage adjustment because of concerns about a longer term decline in industry competitiveness on world markets.

The industry packages included indirect assistance measures that created an incentive for change by altering the operating conditions for the industry. In contrast the general adjustment assistance mostly involved programs that provided direct, short term assistance for producers. *Exceptional Circumstances* drought assistance and FMDs were the major areas of government intervention. A breakdown of the assistance measures in table 21 is provided in appendix B.

The general measures that contributed to industry adjustment were *Farm Help*, *FarmBis* and the regional assistance programs. These programs were potentially available to all producers including those in industries subjected to policy reforms. Some citrus growers utilised the *Farm Help* program and the *Regional Partnership Programs*. Dairy and pig meat producers were denied access to some general assistance measures for a limited period:

- the general assistance measures were accessible to these producers once the industry specific assistance programs had ended.

Implementing policy reforms

An important aspect of the *full impact approach* to policy reform is that farmers receive immediate market signals on the full extent of the change in enterprise returns. This creates a strong incentive for producers to consider their future financial position when the reform is implemented. A further advantage is that transitional assistance is provided as a transparent, explicit payment:

- from an equity perspective this is a preferable approach for the wider community;
- the financial transfer involved with the transitional assistance is known.

A *phased approach* to reform delivers transitional assistance through market returns. It gets mixed in with the fluctuations in net returns and many farmers would view it as a component of farm income. A gradual change in support does not generate the same degree of urgency for focusing on the changes that may be necessary to improve farm profitability.

The *phased approach* is a cost effective way of delivering transitional assistance and all the assistance goes to producers. However, it is a blunt policy instrument because there is no opportunity for addressing intra-industry equity issues. It does not allow the targeting of assistance at those who are most affected by the reform. The *full impact approach* is more flexible:

- explicit transitional assistance measures can be designed to accommodate any targeting objectives the government may want to impose;
- welfare issues for those in serious financial difficulties can be addressed with a specific industry program.

The way reforms are implemented also has implications for the realisation of the consumer benefits. Implicit transition assistance from a *phased approach* to reform is generally funded by consumers. This is because the implicit tax in the support mechanisms continues to apply for a period of time. The *full impact approach* potentially allows consumers to immediately obtain the full benefits of the reform:

- explicit assistance is often funded by tax payers from consolidated revenue;
- consumer benefits from the *full impact approach* would be delayed if transitional assistance measures are funded by a consumer levy.

The options for transitional assistance

The type of transitional assistance that is provided as part of a policy reform process is an important issue. A government intervention through transitional assistance can affect the way individuals respond to the adjustment pressures. Therefore the design of the assistance measures can affect the adjustment process in different ways.

Transitional assistance that distorts market signals at the farm gate can be counter-productive. It can impede the adjustment process or it could encourage a course of action that does not lead to an improved allocation of resources. The policy reform benefits can be dissipated if the assistance acts in a way that reduces or distorts the incentives for change:

- targeting mechanisms and ‘conditions of use’ for the assistance are important considerations for policy makers.

Requests for adjustment assistance can take various forms. It could involve longer term assistance to offset the financial effects of the reform (eg an income support payment). Alternatively it could involve direct, short term measures to encourage farm restructuring. These can range from untied grants through to specific purpose subsidies:

- specific purpose assistance creates an incentive for a particular course of action.

In some cases the government may identify some market failure issues that will affect the process of adjustment. It may require specific actions to correct for the market failure. This is often the reasoning behind indirect assistance measures. But in other cases the government may wish to facilitate change by reducing the adjustment costs borne by producers.

There are several ways for a government to intervene and provide industry assistance. Corden (1974) developed a theoretical framework for assessing the options in the context of a small country exposed to import competition. If a decision is made to provide industry assistance it is possible to develop a ranking of policy options from the ‘most preferred’ to the ‘least preferred’ solution.

Corden's framework was developed for circumstances where the objective of the intervention was to increase domestic output. He showed the policy options could be ranked according to the *by-product distortions* that would be introduced by the intervention. For example, an input or output subsidy would have no by-product distortion on consumption. If the assistance were provided through tariff protection a consumption distortion would be introduced:

- input and output subsidies can increase output without affecting prices;
- tariff protection increases output at the expense of higher prices for consumers.

The principles of Corden's framework may be applied to transitional assistance for policy reform. In this case the objective of the intervention is to facilitate adjustment rather than provide an industry based welfare payment. This means the *by-product distortion* would be the assistance delays or distorts the movements of resources that would normally occur.

Reductions in market support and protection are actions that reduce the *by-product distortions* of the original policy intervention. In general industry support increases output and raises consumer prices above the levels that would have prevailed in the absence of the policy intervention. Transitional assistance could introduce new distortions or reduce the benefits of the reform by encouraging higher output or higher prices for consumers.

Policy interventions should be made as close as possible to the point of divergence between the private and social costs of the market outcomes (Corden, 1974). Generally the aim of transitional assistance is to help producers adjust to the new market conditions. Some may decide to leave the industry or diversify into other products. Others who choose to remain in the industry will make changes to improve their financial position:

- the point of divergence is on the output decisions of individual producers.

In some situations there may be market failure issues that will affect the ability of the industry to adjust to the policy change. From an economic efficiency perspective there may be a case for transitional assistance to correct for the effects of the market failure. This would require the assistance measures to generate benefits that exceeded the costs of the intervention.

Issues that can affect industry adjustment and could reflect a market failure include under-investment in R&D, inadequate infrastructure support and market access conditions. Other market development issues such as market intelligence, grading and quality control systems, market promotion and disease eradication could also be areas of market failure:

- there may be insufficient incentive for an individual producer to address these issues because of high costs and the public good nature of the benefits.

In other situations the transitional assistance is provided to facilitate adjustment. The issue of *by-product distortions* in assessing the options becomes a relevant consideration. It provides a basis for ranking the most common forms of transitional assistance (table 22). The ranking assumes the measures are introduced in situations where no market failure issues are present.

Long term income payments and temporary border protection

The issue of production distortions would suggest a long term income payment is the least preferred form of assistance after production linked subsidies. A decoupled payment is not directly linked to production decisions but it encourages resources to remain in the industry. This approach to reform is unlikely to reduce pre-existing output distortions especially if the payment is not fully decoupled from production decisions.

22. A ranking of transitional assistance for policy reform

| | <i>Incentive for: farm restructuring</i> | <i>industry retirement</i> | <i>Assistance can be targeted</i> | <i>Incentive for production distortion</i> |
|---|--|--------------------------------|---|--|
| Long term input, output subsidy | none | none | yes | production incentive (possible distortion of input use) |
| Long term income payment * | minimal | minimal | yes | pre-existing distortion continues |
| Temporary border protection | weak | weak | no | temporary shorter term incentive (consumption distortion) |
| Phased reform ** | limited (delayed response) | limited | yes, in some cases | declining shorter term incentive (consumption distortion) |
| Full impact (overnight) reform with: | | | | |
| - one-off, tied payment *** | strong | limited | yes | one-off incentive (possible distortion of input use) |
| - one-off, un-tied payment | strong | strong | yes | may be used as one-off incentive |
| - welfare support ^ | moderate | weak | yes | minimal incentive |
| - indirect assistance ^^ | strong | immediate | no | minimal incentive |
| - exit assistance ^^^ | .. | immediate | yes | no incentive |
| - no assistance | immediate | immediate | .. | no incentive |

Policy options ranked from 'least preferred' to 'most preferred' solutions.

Source: Adapted from Corden 1974.

* Compensatory payment for the full effect of the loss of support.

** Incorporates implicit assistance until the final policy position is reached - the implicit consumer tax and production incentive continues at a declining rate for a specified period.

*** One-off specific-purpose grant.

^ Targeted short term welfare payments (twelve months) for food and basic living expenses before exiting or restructuring.

^^ Initiatives such as market promotion, grading and quality assurance, export facilitation, disease eradication, etc.

^^^ Targeted assistance for the transition into other agricultural industries or a non-agricultural vocation.

Some types of income support have an incentive for industry participation and pre-existing production levels (ABARE 2001a). In general the payments have an off-setting effect on the way the reform affects the income situation of farmers. A payment that fully compensates for the initial loss of support will weaken the incentive for enterprise restructuring, diversification and farm exit decisions. Low income farmers are encouraged to remain in the industry:

Adjustment occurs because of a change in the income situation of the farmer which amongst other things can be caused by a change in price. If the farm income situation is unchanged there is very little incentive to fundamentally alter production decisions. To a large extent the pre-existing production distortions are likely to continue:

- the income payment dilutes the effect of the fall in market prices on adjustment decisions – farmers are less responsive to the market price signals.
- it also fosters a reliance on government assistance funded by taxpayers.

The issue of *by-product distortions* also suggests that temporary import protection is not a good way to provide transitional assistance. It is a shorter term assistance measure but it may be counter-productive. The border protection could increase a pre-existing output distortion and introduce a new distortion though higher prices for consumers.

A further disadvantage of short term border protection is that it provides assistance through market prices. Producers do not get clear market signals on the effects of the reform and the transitional assistance gets mixed in with the fluctuations in market returns:

- the size and purpose of the financial transfer is not transparent to producers.

The investigation on safeguards assistance for the pig meat industry highlights this point (PC 1998). The PC advice was that temporary import protection would not be the best way to facilitate adjustment. A preferred solution was to allow prices to decline to market determined levels and use other forms of assistance that focused on particular issues of adjustment.

Full impact versus a phased approach

The implicit assistance from a *phased approach* to reform may be a better way of facilitating change. It is a shorter term measure that declines in value. However, a disadvantage with this approach is that it also uses the market price to deliver assistance. It delays the removal of the pre-existing production distortions and can lead to a lengthy adjustment process:

- the citrus industry reforms involved an extended tariff phase-out;
- the value of the implicit transitional assistance was mixed in with the fluctuations in net returns caused by market developments.

The objective of transitional assistance is to facilitate adjustment. This is best achieved by making producers fully aware of the need for change and clearly identifying the transitional assistance measures. This suggests it would be preferable to use the *full impact (overnight) approach* to reform in conjunction with some form of transparent direct assistance.

Producers get immediate market signals on the full effects of the policy reform. This creates a strong incentive for producers to assess their future profitability and take appropriate action. A one-off explicit payment has some appeal as a means of delivering transitional assistance. It is transparent, clearly identified and conditions may be imposed to target the assistance:

- an explicit payment is more likely to be used for restructuring purposes rather than being treated as a component of farm income;
- an untied grant allows farmers to make adjustment decisions that are appropriate for their circumstances – the assistance is not tied to a particular course of action.

The dairy transitional assistance was based on this approach. DSAP/SDA payments were untied grants and dairy farmers could see the full impact of deregulation on net returns. Most farmers that remained in the industry converted their quarterly assistance payments to a lump-sum and used it for enterprise restructuring (Harris 2005b).

A one-off, untied transitional payment will have some output distortion effects. Low income and older farmers are likely to consider their options for diversifying or exiting the industry. But others will choose to invest the payment in their farm business and remain in the industry. Industry output may be higher than would be the case if no assistance had been provided.

However, the output distortion will be smaller than the effect from a *phased approach* to reform. Implicit assistance from a phased policy change is provided through market prices and is tied to the industry. The purpose and size of the assistance is not transparent. Most farmers are likely to treat it as a component of their net returns:

- there is not the same incentive for farmers to assess their situation and take action.

In terms of farm diversification and industry exit decisions the adjustment response will be more immediate with a *full impact approach* to reform and a one-off, untied transitional payment. An explicit payment separate from farm returns is like receiving a wind-fall gain. It requires a decision on how the assistance will be used:

- it contributes to a rapid reduction in the pre-existing output distortion.

Tied versus untied transitional payments

A further consideration is the effect of tied and untied assistance on diversification and farm exit decisions. An untied transitional payment is unlikely to dilute the strong incentive for individuals to consider their future in responding to overnight policy reform. If the grant had acceptance conditions tied to the industry it would limit consideration of these alternatives:

- tied assistance creates a financial incentive for industry participation.

Untied transitional assistance will have a smaller output distortion effect than tied assistance. This is because it does not distort the adjustment response away from diversification and farm exit decisions. Farmers are free to use the one-off payment to make changes that will support their continued participation in the industry. Alternatively it could be used to reduce the cost of switching into other agricultural activities or other vocations.

Overnight dairy deregulation accelerated the adjustment in farm numbers that was evident in the pre-reform period. It seems likely the untied transitional payments contributed to a faster rate of industry exits. For some farmers the DSAP/SDA grants were a one-off opportunity to reduce the costs of switching to non-dairy activities:

- the untied payments facilitated a rapid transition of resources – implicit assistance from a *phased approach* to reform would not have had the same effect.

Targeting adjustment assistance

In some situations the ability to target adjustment assistance is an important consideration. From a wider equity perspective it may be difficult to justify a payment to wealthy farmers. Eligibility conditions and thresholds to vary the amount or the distribution of assistance can be easily incorporated in the conditions of a one-off, explicit payment:

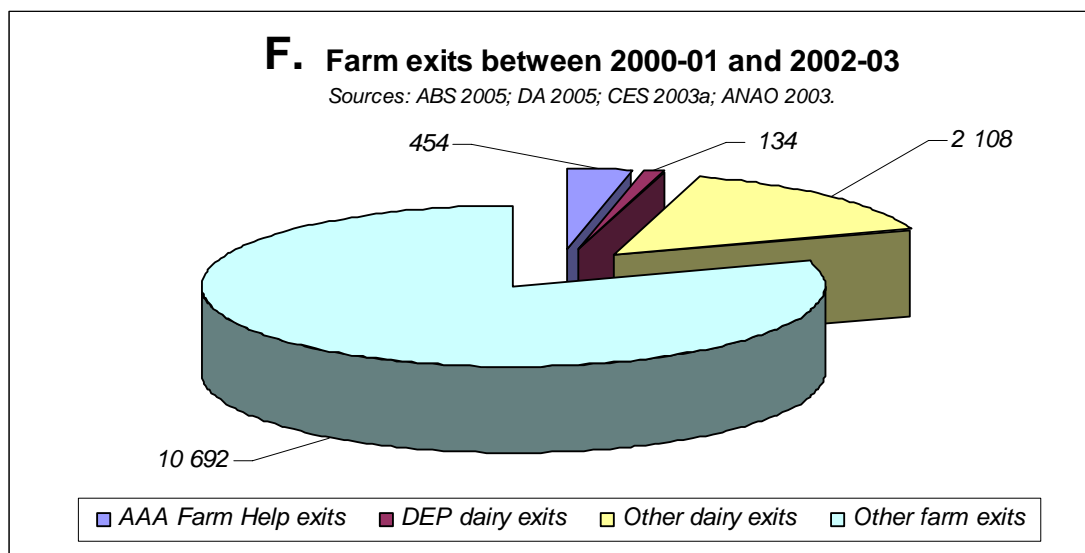
- it is not possible to target the implicit assistance from border protection.

Exit assistance

From an economic welfare perspective the most preferred solution is to provide no assistance. To varying degrees direct transitional assistance creates financial incentives that generate output distortions. However, this may not be a politically acceptable policy response when consideration is given to other issues. An alternative response is to provide indirect assistance programs or exit assistance:

- they are preferable solutions because they create minimal output distortions.

Targeted exit assistance can be used to facilitate adjustment. Exit programs that have been used in Australia are restricted by relatively tight eligibility conditions. They are targeted at those who are considered to be in serious financial difficulties. The number of farmers who have qualified for exit assistance in recent times is relatively small (figure F).



During the three year period of adjustment to dairy deregulation around 20% of total farm exits could be viewed as assisted retirements. This includes those who qualified for tax free payments under the *Farm Help* program and the *Dairy Exit Program* (DEP). It also includes ‘other dairy exits’ who were farmers that retired with DSAP/SDA payments:

- around 80% of all farm exits occurred in other industries with farmers responding to the price signals from changing market conditions;
- if dairy deregulation had adopted a *phased approach* to reform the number of assisted dairy farm exits during this period would have been smaller.

The targeting conditions in these exit programs ensure the assistance is not widely available (see appendix C). If the assistance was widely available it would distort the market signals for investment decisions. It would place the government in a position of absorbing the business risks of agricultural production:

- if the targeting conditions are too generous the government will be assuming the risk for poor decision making.

Short term welfare support and limited exit assistance for producers in financial difficulties can facilitate adjustment to policy reform. A limited access welfare safety-net is consistent with community expectations that are reflected in government interventions for broader social objectives. There is no output distortion with this type of assistance because it encourages resources to exit the affected industry:

- an industry specific exit program for a limited period can facilitate adjustment;
- a program managed by an appropriate welfare agency would ensure there is equitable treatment of welfare issues with the wider community.

Indirect transitional assistance

For the wider community indirect assistance measures can be a cost-effective way to facilitate adjustment. Low cost industry initiatives can be a catalyst for changing the industry focus, improving competitiveness and developing new opportunities for sales. Correcting for market failures can improve the adjustment process and generate a better reallocation of resources.

Indirect assistance measures do not create financial incentives that can generate a production distortion. Farmers do not receive any direct financial benefit. The funding is directed to individuals and entities not facing the pressures for change. This may involve advisory service providers (i.e. consultants, marketing experts, scientists, etc), managers of infrastructure, government departments, advertising firms, etc.

Policy makers often use indirect transitional assistance as a catalyst for a change in industry behaviour. Programs can be designed to support and encourage an adjustment strategy that is expected to improve the competitive position of producers. This will influence the adjustment decisions of some producers:

- transitional assistance for the citrus and pig meat industries are examples of indirect measures that shaped the producer adjustment response.

This type of assistance can facilitate adjustment provided the funding is used for meaningful initiatives. Program initiatives have to support farmer adjustment decisions or the assistance will be an ineffective use of government revenue. The risk with this type of assistance is that it can limit consideration of other adjustment options – diversification, industry exit.

By itself indirect assistance that is focused on a particular adjustment strategy can affect individual responses to the policy reform. It could generate a limited production distortion. Some farmers may embrace the strategy and give insufficient consideration to the alternatives that would have been considered if no assistance had been provided.

The distortion effect will be smaller than the effect of direct assistance that creates a financial incentive for a particular course of action. This is because adoption of the strategy is self-funded. There is a strong incentive for producers to consider the potential risks and returns of investing in the adjustment strategy in comparison to the alternatives.

The availability of an exit program in conjunction with indirect assistance measures can help to minimise the risk of distorting adjustment decisions. Low income farmers and those in financial difficulties have an alternative to consider. The assistance package for the pig meat industry adopted this approach:

- indirect assistance that provides information and encourages farmers to assess all options would have the least distorting effect on adjustment decisions.

Indirect assistance through industry plans

Most of the change that occurs in Australian agriculture is autonomous adjustment. It is based on individuals making decisions that reflect their particular situation without government aid. Judgements are made about expected returns and the commercial risks associated with these decisions. This could involve decisions to exit, seek off-farm employment, diversify, expand or change the production process.

Individuals' acting in their own self interest in response to undistorted market signals is the best way for adjustment to occur. Government programs that provide indirect assistance and promote a course of action are implicitly based on the views of policy advisers. There are risks with this approach to adjustment assistance:

- policy makers are not necessarily in a position to judge the best way for individuals or the industry to respond to the adjustment pressures;
- market based price signals are the best guide for adjustment decisions.

Some indirect assistance programs can be highly directive in advising producers on how to adjust. Industry plans that advocate a course of action with targeted outcomes can distort individual adjustment decisions. Some producers may adopt the strategy without due consideration of the alternatives:

- it affects decision making by weakening the focus on price signals;
- targeted outcomes may be misinterpreted as an assessment of the future prospects for the adjustment strategy.

Indirect assistance measures work best when they avoid strongly advocating a particular adjustment strategy. Initiatives that encourage consideration of all the options for change can facilitate the adjustment process. If the assistance encourages a particular response it is important that farmers are advised there is no guarantee on the success of the strategy.

Intra-industry equity issues in adjustment assistance

The provision of transitional assistance for policy reform often raises intra-industry equity issues. All producers gain benefits from the implicit assistance provided by measures that support market returns (eg a phased reduction in border protection). Indirect assistance measures also provide transitional support for all producers.

Targeting mechanisms imposed on explicit direct assistance measures will mean individual producers are treated differently. There may be a cap on the amount of assistance received by an individual. In other cases there may be eligibility conditions or financial tests that determine the level of assistance.

Decisions to impose targeting conditions are based on equity issues associated with the social and political objectives of the government. The thresholds for reducing or excluding access to assistance are generally based on arbitrary judgements about financial circumstances across the industry. Similar judgements are involved in all other areas of government policy (eg thresholds for welfare payments, taxation rates, etc).

The provision of targeted direct assistance may have un-intended consequences. It introduces incentives and disincentives for adjustment decisions. The most obvious consequence is that some producers who would otherwise exit the industry can potentially gain financial help to remain in the industry:

- producers who were excluded from the assistance have to self-fund their adjustment response if they wish to maintain their financial position;
- more generally it could create a disincentive to give due consideration to the commercial and seasonal conditions risks of their production decisions.

8. Concluding comments

The domestic impact of trade related policy reform is an important issue for many countries. Governments are often reluctant to lower trade barriers and eliminate support for highly protected industries because of concerns about the ability of farmers to adjust to the change in market conditions. But these concerns are often overly pessimistic.

Farmers are responsive to changes in net returns caused by market related developments and there is no reason to view the response to policy changes any differently. Farmers will be equally responsive to the adjustment pressures caused by a reduction in industry support. Policy reform will lead to farm level adjustments and some farmers may choose to exit the industry. Those remaining will make changes to improve their financial position:

- adjustment in agricultural industries is a continuous long term process;
- farmers enter and exit industries according to changes in market circumstances.

Adjustment to policy reform in Australia

Australian experiences with autonomous adjustment indicate that farmers have shown considerable resilience and capacity to adapt to changing market conditions. Fluctuations in world prices and exchange rates affect farm returns in most industries. Farmers have reacted by making changes to maintain the profitability of their farm business.

A number of trade related policy reforms have been implemented in Australian agriculture over the past 10-15 years. The case studies that were reviewed involved a different type of policy reform:

- the dairy reform involved an extended phased reduction in assistance for the export sector followed by the overnight elimination of the remaining support measures;
- the citrus reform involved an extended phased reduction in tariff protection for the processing fruit sector;
- the pig meat reforms involved an overnight change in quarantine trade access conditions for the processed meat sector; and
- the SA lobster reforms involved the overnight removal of open access rights to a naturally occurring resource in limited supply.

These case studies show the effects of the policy reform were not as severe as expected. Some producers left the affected industries for other agricultural activities, non-farming vocations or retirement. But after a short period of adjustment there was an improvement in industry performance. A widespread industry contraction that some had feared did not occur.

Producers that chose to remain in the industry were not passive market participants. They took steps to improve enterprise performance and their financial situation. The changes that occurred highlight some points about the dynamic behaviour of producers when faced with economic pressures for change.

Firstly, producers adjust to the effects of reform in different ways. It depends on individual circumstances and the opportunities to improve profitability. Dairy deregulation showed that producers adopted different strategies to improve the financial position of their farm business (Harris 2005b). The citrus and pig meat reforms showed that producers altered their farm output to improve competitiveness.

Producers in the four industries have responded to the effects of policy reform and changes in world market prices with scale expansions, adjustments in input use to improve efficiency and enterprise diversification. The pressure for change also encouraged improvements in farm and financial management, the adoption of new technologies and in some cases changes in the quality and content of the farm output.

Secondly, the period of adjustment was determined by the way the reform was implemented and the nature of the production process. Adjustment in the dairy and pig meat industries was relatively short. This is because the reform was implemented overnight and the length of time for a producer supply response is relatively short:

- a supply response period of one to two years is typical for pig meat production and two to three years for milk production;
- citrus industry adjustment was longer because the reform was phased-in and it takes several years for a change in tree varieties to affect output;
- the lobster reform involved a switch to catch quotas but the adjustment was linked to the timing of the recovery in the lobster stocks from over-exploitation.

The dairy and pig meat reforms are examples of the *full impact (overnight) approach* to policy reform. The advantage of this approach is that producers get immediate market signals of the full extent of the change in enterprise returns. This creates a strong incentive for individuals to immediately assess their future prospects.

The *phased approach* to reform that was used for the citrus industry delays the transmission of the full impact on producer returns. It gives producers time to adjust to the effects of the reform. But it leads to a longer adjustment process. Producers are slower to make the changes that will accommodate the full affects of the reform:

- it is more likely to encourage farmers experiencing low incomes before the reform was introduced to remain in the industry;
- some of these producers could delay consideration of their options for adjustment and experience a continuing deterioration in their financial position;
- an earlier decision to exit or diversify could reduce these adjustment costs.

A third point of interest is that policy reform was a catalyst for change but market conditions continued to affect producer returns in the post-reform period. The industry adjustment was a response to market signals that reflected both policy and market related developments. Some autonomous adjustment would have occurred if the reform had not been implemented:

- this has implications for the way policy makers react to concerns about the reform induced adjustment costs borne by producers;
- transitional assistance should address the direct effects of the reform.

A further point of interest is the improved export performance that was apparent after a period of adjustment. Strong export demand and favourable exchange rates supported market returns in the dairy and lobster industries in the post reform period. The citrus and pig meat industries benefited from the emergence of market opportunities and industry efforts to encourage the development of a larger export trade.

An improved export performance should not be viewed as an objective of industry adjustment to policy reform. It may be an outcome of the adjustment process if industry performance and market opportunities are suitable. The development of an export capability must be based on industry competitiveness and a response to undistorted market price signals.

Indirect transitional assistance can facilitate the development of a stronger export culture. Initiatives such as export promotion, market access negotiations and the introduction of QA standards can encourage the industry to pay closer attention to the requirements of export markets. However, export sales should not be advocated as the sole adjustment response.

A final point of interest is the number of producer retirements in the post-reform period. A significant number of producers retired from the dairy and pig meat industries. But farm exits had been evident in both industries before the reforms were introduced. These exits reflected autonomous adjustment decisions that were largely driven by changes in market returns:

- the policy reforms accelerated the development of larger scale enterprises.

In summary the key point from these case studies is that farmers were able to adjust to the change in market conditions. Some older farmers retired and others moved into vocations outside agriculture. Those that remained took steps to improve the physical and financial performance of their farm by diversifying, increasing output or making efficiency gains.

In three of the case studies transitional assistance was provided as an element of the policy reform. The type of assistance varied but the common principles were the assistance was provided for a limited period and market prices directed the adjustment process:

- it demonstrates that long term income supplements are not required to sustain an industry after the removal of industry support measures.

Transitional assistance as an element of policy reform

Adjustment is an inevitable and necessary aspect of long term industry development. Policy reform leads to farm level changes that can be an important catalyst for improving industry performance. But it often leads to industry requests for assistance.

The way policy reforms are implemented is an important issue. Transitional assistance to facilitate the adjustment process is an approach that has been used by Australian governments in certain circumstances. If assistance is to be provided it raises the question of the objective of the assistance and what form it should take.

Most types of assistance will affect the way the producers adjust to the effects of the reform. For example, some forms of assistance create financial incentives that encourage industry participation. Other forms of assistance may limit the consideration of the options for adjustment without offering a direct financial inducement.

This is especially relevant for producers experiencing low incomes before the reform was introduced. Some of these producers may be encouraged to remain in the industry. This can create a *by-product distortion* because industry output would be higher than would be the case if no assistance was provided.

The objective of transitional assistance for policy reform is to facilitate adjustment rather than provide an industry welfare payment. This means the options can be ranked according to how strongly they will introduce a production distortion in the affected industry.

Long term income support will not facilitate adjustment and is the least preferred form of assistance after production linked subsidies. If farmers receive an income supplement there will be extra resources in the industry. It dilutes the effect of the decline in market prices on farm adjustment decisions - farmers are less responsive to the market price signals.

There are various types of income support payments. Some have conditions that contain an incentive to maintain industry participation and pre-existing production levels. In general the annual grant will have an off-setting effect on the way the reform affects the income situation of farmers. A payment that fully compensates for the initial loss of support will weaken the incentive for enterprise restructuring, diversification and farm exit decisions:

- low income farmers are encouraged to remain in the industry;
- it also fosters a reliance on government assistance funded by taxpayers.

Adjustment occurs because of a change in the income situation of the farmer which amongst other things can be caused by a change in price. If the farm income situation is unchanged there is very little incentive to fundamentally alter production decisions. To a large extent the pre-existing production distortions are likely to continue.

Temporary border protection is also not a good way to provide transitional assistance and it may be counter-productive. It is a shorter term measure but it could increase a pre-existing production distortion and introduce a new distortion through higher prices for consumers. A further disadvantage is that it provides the assistance through market prices:

- producers do not get clear market signals on the effects of the reform;
- the transitional assistance gets mixed in with the fluctuations in market returns;
- the size and purpose of the financial transfer is not transparent to farmers.

The implicit transitional assistance from a *phased approach* to reform may be a better way of facilitating change. It is a shorter term measure that declines in value. A disadvantage with this approach is that it also uses the price mechanism to deliver the assistance:

- it also delays the removal of the pre-existing production distortions.

The best way to facilitate adjustment is for producers to get immediate, undistorted market signals on the full effects of the policy reform. This would suggest a better way to proceed is to adopt the *full impact (overnight) approach* to policy reform. It creates a strong incentive for farmers to immediately assess their future prospects and consider their options for change:

- however, overnight reform often creates political pressures for assistance.

Individuals' acting in their own self interest in response to undistorted price signals is the best way for adjustment to occur. But the government may choose to provide some assistance. A one-off, untied grant has some appeal as a means of delivering assistance. The purpose is clearly communicated and targeting conditions can be imposed if required. It is also more likely to be used for farm restructuring than assistance provided market prices:

- implicit assistance from a *phased approach* to reform is non-transparent, tied to the industry and is likely to be treated as a component of farm income.

A further consideration is the issue of diversification and farm exit decisions. The adjustment response will be more immediate with a one-off, untied payment. If the payment is tied to a particular course of action it will direct the way the adjustment occurs. It could also encourage farmers to remain in the industry including those experiencing low incomes.

An untied transitional payment does not affect the consideration of the options for adjustment including diversification or retirement. It does not encourage a particular adjustment strategy or delay the adjustment. Producers will base their decisions on market price signals.

A one-off, untied payment separate from net farm returns is like receiving a wind-fall gain. It requires a decision on how to use the assistance. Some will remain in the industry and use the assistance for farm restructuring. Others will decide to exit the industry and use the assistance to reduce the costs of switching into other industries or other vocations.

The incentives and disincentives in transitional assistance measures is an important issue for policy makers. The options with the least *by-product distortions* would be indirect assistance programs and targeted exit assistance.

Indirect assistance measures do not create financial incentives that can generate a production distortion. It can facilitate adjustment provided the funds are used for meaningful initiatives. Programs that do not support farmer adjustment decisions will not meet the objective of transitional assistance and will be an ineffective use of government revenue.

In some situations indirect assistance may be necessary to correct for market failure issues that could affect the adjustment process. It can also be used as a catalyst for changing industry behaviour. This could involve programs that encourage a course of action that is expected to improve the competitive position of producers.

A potential disadvantage with some forms of indirect assistance is that it can unduly influence the adjustment decisions of some farmers. Programs that encourage industry participation by advocating a particular adjustment strategy can limit the consideration of other options (eg diversification or farm exits). This can have a distorting effect on the industry adjustment.

Targeted exit assistance has no production distortion for industry output. It helps farmers in severe financial difficulties to leave the industry by reducing the costs of transition. An important condition attached to this type is assistance is that farmers are unable to re-enter either the industry or agriculture in general:

- exit programs used in Australia have a five year exclusion provision;
- they have a highly restrictive net assets test that targets the assistance to those with limited economic wealth; and
- the risk of distorting investment decisions is minimal because the amount of assistance is not especially generous.

Exit programs can be a useful compliment to other assistance measures. While eligibility conditions may limit access to the program it will raise the profile of industry retirement as an option for consideration by farmers:

- this was the approach used in the Australian pig meat reforms.

The best way to facilitate farmer adjustment decisions is to make the full impact of the reform transparent. Similarly, transitional assistance will be more effective if it is transparent. This suggests the *full impact approach* is the best way to implement policy reform either with or without some form of transitional assistance:

- an untied, one-off grant in conjunction with targeted exit assistance is the best form of direct assistance if it is deemed to be necessary;
- however, a targeted exit program in conjunction with indirect assistance measures would be the least distorting way of facilitating change.

Appendix A: General adjustment assistance in Australia

The AAA package

The *Agriculture – Advancing Australia* (AAA) package was introduced in 1997 and is composed of several individual programs (DAFF 2005a). There are three main programs that provide general adjustment assistance for agricultural producers:

- the *Farm Help* program;
- the *FarmBis* program; and
- the *Farm Management Deposit* (FMD) scheme.

Farm Help program

Farm Help is a safety net program designed to help farmers in financial difficulties (DAFF 2005b). The aim of the program is to encourage these farmers to consider their options for change. This may involve improving the performance of their farm enterprise, finding alternative sources of income or re-establishing themselves outside of agriculture.

Program applicants have to obtain a professional assessment of their financial situation. They also have to develop a *Pathways Plan* that sets out a course of action that for changing their situation. The plan is reviewed quarterly to ensure farmers are undertaking the actions that were identified. A grant of up to A\$5,500 is available for professional advice and training.

Assistance is available to farmers who are unable to borrow against their assets. The program has two components (Centrelink 2005a). It offers income support for up to twelve months while farmers assess their situation and consider their options. It also offers exit assistance for producers who decide to leave agriculture which are subject to assets and income tests.

Program expenditures are higher for the welfare support component (table 23). Between July 2000 and February 2003 there were more than 13,600 recipients of welfare support. Over the same period 454 exit grants were distributed (ANAO 2003). This would suggest that most program participants do not take the additional step of leaving agriculture. However, it would also reflect the restriction imposed by the net assets test for the exit grant.

23. A sample of Farm Help program expenditures

| | | Welfare support | Exit grants ^ | Support grants: | | Total |
|------------------------------|---------|------------------------|----------------------|------------------------|--------------------|--------------|
| | | | | advice * | training ** | |
| Expenditures | A\$m | 37.4 | 17.1 | 5.8 | 0.1 | 60.4 |
| - share of program | % | 61.9 | 28.3 | 9.6 | 0.2 | |
| Successful applicants | no. | 3 616 | 454 | 3 354 | 68 | .. |
| - average payment | A\$'000 | 10.3 | 37.7 | 1.7 | 1.5 | |

Program expenditures between July 2000 and February 2003.

Source: ANAO 2003.

^ Tax-free re-establishment grant was limited to A\$45,000 per farm during the period of review.

* Grant to purchase professional advice - maximum grant A\$3,300 per farm.

** Re-training grant for users of exit grant limited to A\$3,500 per farm.

Income support is paid fortnightly with a maximum payment of A\$18,736 for a partnered family over a twelve month period (table 24). Payments are based on the unemployment benefit available through the *Newstart Allowance* (Centrelink 2005b). There are income and non-farm assets tests which reduce the payment when the specified thresholds are exceeded.

A tax free re-establishment (exit) grant of up to A\$50,000 is available for farmers who decide to sell the farm and leave agriculture. It requires the farm to be sold and the retiring farmer is not allowed to own or operate a farm for five years (Centrelink 2005c). There is no farm sale requirement to utilise the income support assistance:

- income support payments are deducted from the exit grant.

The exit assistance is subject to a net assets test. It allows for the maximum grant to be paid if net assets after the sale of the farm are less than A\$100,000. For net assets exceeding this amount a formula is used to reduce the size of the grant. It is reduced by A\$2 for every A\$3 of additional net assets. There is no grant if net assets exceed A\$175,000.

Farmers in financial difficulties would find it easier to meet the A\$217,500 threshold in the non-farm assets test for the maximum amount of welfare support (table 24). The net assets test for the exit grant includes the net return from the farm sale after settling all liabilities.

Farm Help exit assistance is targeted at those in financial difficulties. In general only a small number of retiring farmers qualify for the assistance. For the 2000-01 to 2002-03 period there were around 13,390 farm retirements from agriculture (ABS, 2004). Over the slightly shorter period to February 2003 there were 454 farm exits that obtained a *Farm Help* exit grant.

24. Targeting conditions for Farm Help and EC assistance

| | <i>Farm Help</i> welfare support | <i>Exceptional Circumstances:</i> welfare support business assistance | |
|--|-------------------------------------|---|--------------|
| Farmer eligibility test | yes * | yes * | yes * |
| Other eligibility tests | yes ** | yes *** | yes *** |
| Income test [^] | | | |
| - threshold for maximum grant | < A\$3,224 | < A\$3,224 ^{^^} | .. |
| - cut-off for assistance | > A\$31,178 | > A\$31,178 | .. |
| Non-farm assets test [^] | | | |
| - threshold for maximum grant | < A\$217,500 | < A\$217,500 | < A\$435,000 |
| - cut-off for assistance | > A\$485,000 | > A\$485,000 | |
| Annual assistance ^{^^^} | | | |
| - maximum grant | A\$18,736 | A\$18,736 | A\$100,000 # |
| - taxable | yes | yes | yes |
| - maximum period of support | 12 months | 24 months ## | 24 months ## |

* Required to be a farmer for two years before date of application.

Sources: DAFF 2005f; Centrelink 2005b, 2005c.

** Requires development of a Farm Help Pathways Plan.

Requires proof of being unable to borrow against assets by adviser or certificate of refusal from financial institution.

*** Farm located in region with active EC drought declaration.

[^] Newstart conditions for two people in partnered family situation at 30 June 2005 - assets test excludes family farm.

Income test for maximum grant is fortnightly income of less than A\$62 per person.

^{^^} Proceeds from forced disposal of livestock excluded from income test under certain conditions.

One-off A\$10,000 supplement was applied to the income test for 2005-06.

^{^^^} Newstart allowance (A\$360.30 per person per fortnight) for two people in partnered family situation for a twelve month period.

Interest rate subsidy of up to 50% in first year, 80% in second and subsequent years - cap of A\$300,000 over five years.

Assistance can be extended for up to twelve months if an EC drought declaration exceeds eighteen months.

FarmBis program

FarmBis provides training to improve the business and natural resource management skills of farmers. It was established to foster a culture of continuous learning, adoption of innovations and a positive approach to the need for change (Truss 2004c).

The program has two components. The first component offers grants to develop training initiatives for agricultural producers. Industry associations and other groups can apply for funding and are expected to make a contribution towards the cost of the project.

A second component provides a subsidy for producers to undertake training – participants have to contribute to the cost of the activity. The size of the training subsidy varies in each State. In some cases there is a cap on the amount of the subsidy for an individual activity. In other cases there is an annual limit on the amount of training assistance.

Funding for the second component of the program is shared by the Commonwealth and State Governments. For the period 2000-01 to 2003-04 the program expenditures included A\$71 million from State Governments (ANAO 2003). Funding for the program extension from 2004-05 involved A\$66.7 million from the Commonwealth with an expected similar commitment from State Governments.

Most of the *FarmBis* funding is used for direct assistance. The program for the 2000-01 to 2003-04 period involved A\$4.3 million for the development of training initiatives and A\$71 million for training producers (ANAO 2003). Training activities included natural resource management, farm performance benchmarking, business and financial planning, risk management, skills auditing, leadership development and marketing.

Farm Management Deposit scheme

The *Farm Management Deposit* (FMD) scheme allows farmers to set-aside pre-tax income in profitable years which can be accessed during years of low income (DAFF 2005d). FMDs are available through financial institutions such as banks and building societies. The deposits earn interest at commercial market rates which is treated as tax assessable income:

- the tax payable on FMD deposits is deferred until the money is withdrawn.

The aim of the scheme is to encourage greater self-reliance in managing the fluctuations in annual cash flows caused by changes in market returns and seasonal conditions. Taxation benefits are available provided the FMD is not withdrawn inside twelve months:

- FMDs can only be held by individuals with off-farm income of less than A\$50,000 – companies and partnerships are excluded from the scheme;
- there is a A\$300,000 cap on the amount of FMD holdings by an individual.

There has been considerable growth in farmer participation in the scheme. In June 1999 there were around 6,000 FMD holders with total deposits of over A\$220 million. By June 2004 total FMD holdings were worth A\$2.6 billion (DAFF 2005e). There were 43,000 individuals using the scheme and the average deposit was \$60,000 per holder (table 25).

In June 2003 there were around 111,000 agricultural establishments in Australia (ABS 2004). This suggests a sizeable number of producers have not made use of the scheme. The grain and crop industries are particularly heavy users of FMDs. There were 13,155 establishments in the grains industry at the end of 2002-03 and 11,706 FMD holders.

25. Utilisation of farm management deposits, June 2004

| As at 30 June | <i>Establishments in agriculture</i> [^] | <i>Holders of FMD's</i> | <i>Value of FMD's</i> | <i>Average FMD holding</i> ^{^^} |
|--------------------------------|---|-----------------------------|---------------------------|--|
| | <i>number</i> | <i>number</i> | <i>A\$m</i> | <i>A\$'000</i> |
| Crops & grains * | 16 037 | 11 706 | 770 | 65.8 |
| Sheep & beef cattle | 41 553 | 12 559 | 706 | 56.2 |
| Mixed farming ** | 15 864 | 8 490 | 542 | 63.9 |
| Dairy cattle | 10 181 | 3 256 | 133 | 40.9 |
| Horticulture *** | 11 861 | 3 712 | 264 | 71.1 |
| Sugar | 4 538 | 1 119 | 43 | 38.3 |
| Other industries | 10 326 | 2 155 | 140 | 65.1 |
| Total # | 110 360 | 42 997 | 2 598 | 60.4 |

[^] Establishments undertaking agricultural activity, EVAO > A\$22,500, June 2004.

Sources: DAFF 2005e; ABS 2005.

^{^^} Derived as the total value of FMD's divided by the number of FMD holders.

* Includes cotton growing, excludes cut flowers and plant nurseries.

** Combination of beef cattle, sheep and grain.

*** Includes citrus and other horticulture products.

Excludes FMD holdings in the forestry and fishing industries.

Farm Management Deposits provide assistance by reducing the average amount of tax paid by those who make use of the scheme. All farmers that satisfy the off-farm income test can potentially utilise the scheme. However, low income farmers and those in financial difficulties are unlikely to be in a position to gain assistance from the scheme.

Producers in the top tax bracket have a strong financial incentive to use the scheme. In June 2002 around 14% of eligible producers were using the scheme (ANAO 2003). Usage has increased since then but this could mean the assistance is mostly obtained by producers with the greatest capacity to cope with the annual fluctuations in net farm incomes:

- FMDs are likely to be a preferable savings mechanism in comparison to after-tax deposits in short term investment products;
- low income farmers will face stronger adjustment pressures from changes in market returns, seasonal conditions and support policies.

The cost of the scheme for government taxation revenue has been estimated at A\$930 million for the five years to the end of 2004-05 (Truss 2005). This would imply an average level of direct assistance for producers of around A\$186 million per year. It is difficult to assess if this is a reasonable estimate of the value of FMD assistance. For individual producers the value of the assistance would depend on:

- the differential in taxation rates between the time of the deposit and withdrawal;
- the after tax earnings on the deposit; and
- a discount rate for the length of the deposit period.

This estimate suggests the FMD scheme is providing more assistance than the other programs in the AAA package. Adjustment assistance provided through the *Farm Help* and *FarmBis* programs averages less than A\$35 million per year:

- the delivery mechanism (taxation deferral) means the assistance from FMDs may be unintentionally directed towards particular producers;
- it is not transparent process for providing assistance.

The exceptional circumstances program

The *Exceptional Circumstances* (EC) program provides regional short term assistance to farmers experiencing a severe decline in income caused by a rare and severe event (DAFF 2005f). A region must be EC declared before farmers can apply for assistance. The declaration process involves assessing the event against a set of criteria:

- is it a rare (a one in 20-25 year event) and severe event;
- has it caused a severe downturn in income for a prolonged period (over 12 months);
- was it predictable or manageable as part of normal risk management strategies;
- was it a discrete event that was not part of a process of structural adjustment.

The EC program is the primary mechanism for helping farmers adjust to the effects of severe drought conditions. It is not used to provide transitional assistance for the effects of policy reform. However, it is worthwhile examining the program because it focuses on the same issue – a major development that affects the financial position of producers.

The aim of the program is to ensure viable producers are not forced to leave agriculture because of an unforeseen event that is beyond the scope of normal risk management (DAFF 2005f). The assistance helps farmers to remain in agriculture, including those in financial difficulties:

- the program objectives and incentives are the opposite of the *AAA Farm Help* program – there is no exit assistance in the EC program;
- drought is seen to be different from other developments that affect profitability and creates adjustment pressures (eg policy reform, changing market conditions).

EC assistance measures involve welfare support through the *EC Relief Payment* (ECRP) and business assistance through *EC Interest Rate Subsidies* (ECIRS). The ECRP is a fortnightly income support payment. The assistance is available for up to two years and is paid at the same rate as the *Newstart Allowance*. For a partnered family situation the maximum ECRP is currently worth A\$18,736 per year (table 24).

The relief payment is aligned with the welfare support available in the *Farm Help* program. It is subject to the same off-farm income test and the same non-farm assets test. The off-farm income test has a threshold of A\$3,224 (A\$62 per week) for a partnered family situation. The relief payment is reduced if the annual off-farm income exceeds this amount and the cut-off point for assistance is A\$31,178:

- proceeds from the forced sale of livestock are excluded under certain conditions;
- a one-off A\$10,000 supplement was applied to the threshold for 2005-06.

The threshold for the non-farm assets test is A\$217,500 for a partnered family. The ECRP is reduced if the threshold is exceeded and the cut-off point for assistance is A\$485,000. Applicants are assessed against both tests and the payment rate is determined by the test that generates the lowest rate of ECRP assistance (Centrelink 2005b):

- the ECRP can be extended past two years if the EC declaration is rolled-over.

EC business assistance provides an interest rate subsidy on new and existing loans for up to two years. The maximum interest rate subsidy is 50% in the first year and up to 80% in the second year. If the drought declaration and associated recovery period extends beyond two years the 80% interest rate subsidy may be extended into a third year.

ECIRS assistance is subject to a non-farm assets test but the threshold is generous. Farmers are eligible for ECIRS if their off-farm assets are less than A\$435,000. The threshold rises in line with the rate of inflation and assistance is capped at A\$100,000 per year or A\$300,000 over five years.

ECIRS assistance is only provided for drought induced financial difficulties. Farmers do not automatically receive assistance when the EC declaration is invoked. The subsidy rate and subsidy period are set by State Government rural adjustment authorities. Applicants have to show they have financial difficulties caused by the drought and the farm is a financially viable proposition.

The amount of ECIRS assistance is based on a financial assessment which considers the purpose of outstanding loans and repayment requirements. The assistance is calculated as an amount that would shift the applicant from a drought induced loss situation to a break-even situation. The interest rate subsidy is paid as an annual lump sum.

Supplementary assistance measures were introduced in late 2002 because of concerns about the severity of the drought that began in 2002-03 (ANAO 2005). These measures included:

- *Prima Facie Interim Income Support* for up to six months for eligible farmers in areas that had a prima facie case for an EC declaration – ongoing availability;
- *Interim Income Support* for eligible farmers in areas subject to outstanding EC applications – available for seven months to June 2003; and
- *Interest Rate Relief* for eligible farmers in specified areas – available for seven months to June 2003.

By the end of 2004 the EC program had delivered A\$593 million in drought assistance. Almost two thirds of the assistance was provided as welfare support (table 26). Subsequent estimates suggested the amount of assistance had increased to more than A\$680 million by mid 2005 (Truss 2005):

- the threshold in the off-farm assets test for ECIRS assistance was A\$217,500 up until June 2005 – it was subsequently increased to A\$435,000.

Much of the adjustment in Australian agriculture occurs autonomously without government assistance. This includes decisions by some producers to exit agriculture because of declining profitability or low levels of net farm income. In general only a small number of retiring farmers qualify for exit assistance in the *Farm Help* program.

26. A sample of EC program expenditures

| | | <i>Welfare support</i> ^ | <i>Prima Facie income support</i> | <i>Interim income support</i> | <i>Business assistance</i> * | <i>Interest rate relief</i> | <i>Total</i> |
|------------------------------|---------|--------------------------|-----------------------------------|-------------------------------|------------------------------|-----------------------------|--------------|
| Expenditures | A\$m | 285 | 72 | 24 | 200 | 12 | 593 |
| - share of program | % | 48.1 | 12.1 | 4.0 | 33.7 | 2.0 | |
| Successful applicants | no. | 17 457 | 5 056 | 10 067 | 9 062 | 2 898 | .. |
| - average payment | A\$'000 | 16.3 | 14.2 | 2.4 | 22.1 | 4.1 | |

Program expenditures up to December 2004 for the drought that began in 2002-03.

Source: ANAO 2005.

^ Exceptional Circumstances Relief Payment (ECRP).

* Exceptional Circumstances Interest Rate Subsidies (ECIRS).

The incentive structure in EC assistance encourages producers to remain in agriculture. Most low income farmers in the affected regions will qualify for ECIRS assistance because of the generous off-farm assets test (see table 24). This will include farmers who were experiencing declining profitability before the on-set of drought conditions. It will also include producers in financial difficulties that do not qualify for *Farm Help* exit assistance.

To some extent the availability of EC assistance will unintentionally delay the autonomous adjustment that would normally occur. The definition of a 'rare and severe event' and the roll-over conditions for an EC declaration will determine how much effect it has on adjustment decisions in the affected regions:

- the availability of EC assistance also creates a disincentive for farmers to become self-reliant in managing the risks associated with drought.

The availability of ECRP welfare assistance is limited by the targeting conditions. However, the ECIRS business assistance will be widely available in the affected region. To be eligible producers have to show the farm is capable of long-term profitability (DAFF, 2005f). The definition of the financial assessment process that determines 'long term profitability' is an important issue for the effect of ECIRS assistance on autonomous adjustment decisions.

Regional assistance programs

In 1995 the *Rural Partnership Program* (RPP) was introduced to promote social, economic, and environmental change in regional areas (AFFA 2003). It was described as a program that would facilitate long term adjustment by encouraging self-reliance and adaptability to changing market conditions.

The program involved the development of individual RPPs for twelve regions. Each RPP involved a Commonwealth Government partnership with State Governments and regional communities. The combined funding of the Commonwealth and State Governments was around A\$114 million. Most of the RPPs were completed by the end of 2001-02.

The content of individual programs varied according to the type of agriculture and the issues identified by local communities. Assistance measures were not aimed at a particular industry. In most cases they offered limited, short term assistance to producers for a range of initiatives that would encourage farm level adjustment. This included:

- skills development and training in market development activities;
- farm redevelopment, diversification and adopting of new technologies;
- the preparation of farm business plans; and
- property purchases or amalgamations.

In most cases the assistance offered by each RPP was subject to an assets test and there were limits on the amount of individual assistance. Successful applicants had to make a financial contribution to the activity that was funded. In some cases the RPPs assisted producers who were adjusting to the effects of policy reform (eg citrus growing, dried vines fruits).

Some RPPs included restructuring grants for specific purposes. The assistance created a financial incentive to remain in the industry. For some producers the availability of assistance may have limited their consideration of alternatives such as diversification or exiting the industry. It encouraged a course of action that was based on the views of policy makers:

- policy makers are not necessarily able to determine the best course of adjustment.

The *Rural Partnership Program* was replaced by the *Agricultural Development Partnership* (ADP) program in 2001-02. The ADP was established to promote the competitiveness and sustainability of agricultural industries in rural communities (DAFF 2005g). There was a funding commitment of A\$24.3 million for a four year period ending in 2004-05.

The ADP program involved a change in the focus of regional assistance measures. Unlike the RPPs it did not provide direct assistance to producers. Instead it provided project funding for regional communities to identify structural adjustment issues and implement strategies to address those issues.

The aim of the ADP program was to encourage a culture of change through diversification, adoption of innovations and improved natural resource management. This did not preclude funding activities associated with adjustment at the farm enterprise level. However, these activities had to be part of an overall plan to improve the competitive position of agricultural production in the region.

Appendix B: Components of recent adjustment assistance in Australia

27. Direct support measures in selected adjustment assistance

| | Welfare support * | | Exit assistance | | Business support ** | | Total A\$m |
|--|-------------------|------|-----------------|------|---------------------|-------|---------------|
| | A\$m | % | A\$m | % | A\$m | % | |
| Industry specific adjustment assistance | | | | | | | |
| Dairy, 2000 | .. | .. | 6 | 0.3 | 1 748 | 99.7 | 1 754 |
| Citrus, 1994 | .. | .. | .. | .. | .. | .. | .. |
| Pig meat, 1997 | .. | .. | 3 | 75.6 | 1 | 24.4 | 4 |
| Sugar | | | | | | | |
| - SIAP, 1998 *** | .. | .. | .. | .. | 60 | 100.0 | 60 |
| - SIRP, 2002 **** | 36 | 60.0 | .. | .. | 24 | 40.0 | 60 |
| - SIRP, 2004 ***** | 21 | 6.0 | 126 | 36.2 | 201 | 57.8 | 348 |
| General adjustment assistance | | | | | | | |
| AAA Package, 1997 | ~ | .. | ~ | .. | ~ | .. | 525 |
| AAA Package, 2000 ^ | ~ | .. | ~ | .. | ~ | .. | 380 |
| AAA Package, 2004 | | | | | | | |
| - Farm Help | ~ | .. | ~ | .. | .. | .. | 135 |
| - FarmBis ^^ | .. | .. | .. | .. | 133 | 100.0 | 133 |
| - FMDs ^^^ | .. | .. | .. | .. | 930 | 100.0 | 930 |
| - other programs | .. | .. | .. | .. | .. | .. | .. |
| Exceptional Circumstances ^^^^ | 381 | 64.2 | .. | .. | 212 | 35.8 | 593 |
| Regional programs, 1997 ### | .. | .. | .. | .. | 137 | 100.0 | 137 |

Based on announced budget allocations.

Sources: AFFA 2003, 2005; Truss 2002b, 2004a; ANAO 2005.

* Includes income support, counselling services and farm or industry exit programs.

** Includes programs for on-farm restructuring, interest rate subsidies, training, adoption of technology etc.

*** The Sugar Industry Adjustment Package (SIAP) involved several programs implemented at different times. Some funding was allocated to welfare support measures.

**** Sugar Industry Reform Program (SIRP) for the effects of low world prices, poor seasonal conditions and disease outbreaks.

Business support includes A\$10m from the Queensland State Government for farm consolidation loan subsidies.

Business support includes spending on exit assistance - separate estimate unavailable.

***** Supplementary SIRP - program expenditures include administration costs.

Exit assistance includes A\$96m for re-establishment grants (growers & harvesters), A\$23m for farm transfer scheme and A\$7m for retraining assistance (growers & redundant sugar mill employees). Business support includes A\$1.2m for sugar mill business planning, A\$146m for sustainability grants (growers & mills), A\$14m for business planning assistance (growers & harvesters) and A\$40m for grower restructuring grants.

~ Assistance allocated to various programs for welfare support, exit assistance and business support.

^ Includes expenditures of A\$71m from the State Governments for the FarmBis program.

^^ Includes expected matching commitment of A\$66.7m from the State Governments.

^^^ Treasury estimate of taxation revenue forgone for the five years to the end of 2004-05.

^^^^ Total payments up to December 2004 for the drought that began in 2002-03. Includes EC welfare support (ECRP), EC business assistance (ECIRS), Prima Facie Interim Income Support, Interim Income Support & Interest Rate Relief.

Includes the Regional Partnership Programs (RPPs) and the Agricultural Development Partnership (ADP) program.

Funding includes State Government contributions of A\$32.6m for the RPPs and A\$24.6m for the ADP program.

Some funding was used for indirect assistance measures for industries in particular regions.

28. Indirect support measures in selected adjustment assistance

| | R&D support | | Market development * | | Other ** | | Total |
|--|------------------------|------|-----------------------------|-------|-----------------|-------|--------------|
| | A\$m | % | A\$m | % | A\$m | % | A\$m |
| Industry specific adjustment assistance | | | | | | | |
| Dairy, 2000 | .. | .. | .. | .. | .. | .. | .. |
| Citrus, 1994 | .. | .. | 6 | 72.6 | 2 | 27.4 | 8 |
| Pig meat, 1997 | .. | .. | 12 | 59.2 | 8 | 40.8 | 20 |
| Sugar | | | | | | | |
| - SIAP, 1998 *** | 13 | 25.2 | .. | .. | 40 | 74.8 | 53 |
| - SIRP, 2002 **** | .. | .. | .. | .. | 80 | 100.0 | 80 |
| - SIRP, 2004 ***** | .. | .. | .. | .. | 88 | 100.0 | 88 |
| General adjustment assistance | | | | | | | |
| AAA Package, 1997 | .. | .. | ~ | .. | .. | .. | ~ |
| AAA Package, 2000 | .. | .. | ~ | .. | .. | .. | ~ |
| AAA Package, 2004 | | | | | | | |
| - Farm Help | .. | .. | .. | .. | .. | .. | .. |
| - FarmBis | .. | .. | .. | .. | .. | .. | .. |
| - FMDs | .. | .. | .. | .. | .. | .. | .. |
| - other programs | .. | .. | 36 | 100.0 | .. | .. | 36 |
| Exceptional Circumstances | .. | .. | .. | .. | .. | .. | .. |
| Regional programs, 1997 ^ | .. | .. | .. | .. | .. | .. | .. |

Based on announced budget allocations.

Sources: AFFA 2003, 2005; Truss 2002b, 2004a; ANAO 2005.

* Includes market promotion, grading and quality assurance, export facilitation, disease eradication, etc.

** Includes regional assistance measures. Administration and borrowing costs included for some industry programs.

*** The Sugar Industry Adjustment Package (SIAP) involved several programs implemented at different times. Infrastructure support includes A\$20m from the Queensland State Government.

**** Sugar Industry Reform Program (SIRP) for the effects of low world prices, poor seasonal conditions and disease outbreaks. Other includes A\$10m from the Queensland State Government for projects to support new industry innovations.

***** Supplementary SIRP - program expenditures include administration costs.

Other assistance includes A\$75m for regional and community projects, A\$5m for financial counselling services and A\$8m for administration of industry reform groups.

~ Assistance included in direct programs for welfare support, exit assistance and business support.

^ Includes the Regional Partnership Programs (RPPs) and the Agricultural Development Partnership (ADP) program.

29. Availability of selected adjustment assistance

| | Value of assistance # | Start of assistance * | Life of assistance measures | Number of farms ** | Annual level of assistance |
|--|----------------------------------|----------------------------------|--|-------------------------------|---|
| | A\$m | | years | no. | A\$/farm |
| Industry specific adjustment assistance | | | | | |
| Dairy, 2000 | 2 009 | July 2000 | 8 | 13 820 | 18 167 |
| Citrus, 1994 | 8 | November 1994 | 5 | 3 750 | 448 |
| Pig meat, 1997 | 24 | November 1997 | 5 | 4 003 | 1 184 |
| Sugar | | | | | |
| - SIAP, 1998 *** | 113 | July 1998 | 4 | 5 151 | 5 506 |
| - SIRP, 2002 **** | 150 | Sept 2002 | 4 | 4 747 | 7 900 |
| - SIRP, 2004 ***** | 444 | July 2004 | 5 | 4 560 | 19 491 |
| General adjustment assistance | | | | | |
| AAA Package, 1997 | 525 | July 1997 | 3 | 145 086 | 1 206 |
| AAA Package, 2000 | 380 | July 2000 | 4 | 146 371 | 649 |
| AAA Package, 2004 | | | | | |
| - Farm Help | 135 | July 2004 | 4 | 130 526 | 258 |
| - FarmBis | 133 | July 2004 | 4 | " | 256 |
| - FMDs | 930 | July 2004 | 4 | " | 1 781 |
| - other programs | 36 | July 2004 | 4 | " | 70 |
| Exceptional Circumstances ^ | 593 | July 2002 | 2.5 | 135 377 | 1 752 |
| Regional programs, 1997 ^^ | 137 | July 1997 | 8 | 145 086 | 118 |

Based on announced budget allocations. Sources: ABS 2005; AFFA 2003, 2005; Truss 2002b, 2004a; ANAO 2005.

Includes direct and indirect assistance for agricultural producers - excludes programs for regional communities.

* Date when programs were implemented. Exceptional Circumstances start date relates to drought beginning in 2002-03.

Most assistance packages included programs that began and finished over different time periods. The number of years in the life of the assistance measures relates to the program with the longest availability.

** Number of farm entities when the assistance package was implemented, EVAO > A\$5,000.

*** The Sugar Industry Adjustment Package (SIAP) involved several programs implemented at different times.

**** Sugar Industry Reform Program (SIRP) for the effects of low world prices, poor seasonal conditions and disease outbreaks.

Includes assistance provided by the Queensland State Government.

***** Supplementary SIRP - program expenditures include administration costs.

^ Assistance relates to payments for the drought that began in 2002-03 up to December 2004.

^^ Most of the Regional Partnership Programs (RPPs) began in 1997-98 or 1998-99 and were completed by 2000-01.

The Agricultural Development Partnership (ADP) program commenced in 2001-02 with funding for four years.

Appendix C: Exit assistance in Australia

30. Targeting conditions for exit assistance programs

| | Pig meat PPEP 1997 | Dairy DEP 2000 | Sugar SIRP 2004 | AAA 2004 Farm Help |
|---|-------------------------------|---------------------------|----------------------------|-------------------------------|
| Financial test for eligibility | yes * | yes * | no ** | yes |
| Assets test for exit assistance *** | | | | |
| - threshold for maximum grant | < A\$90,000 | < A\$90,000 | < A\$217,500 | < A\$100,000 |
| - cut-off for exit assistance | > A\$202,500 | > A\$157,500 | > A\$485,000 | > A\$175,000 |
| Exit assistance | | | | |
| - maximum grant **** | A\$45,000 | A\$45,000 | A\$100,000 ^ | A\$50,000 |
| - taxable | yes | no | no ^^ | no |
| Re-training grant | .. | A\$3,500 | A\$2,000 | A\$5,500 |
| Grant for professional advice | A\$3,000 | .. | .. | (for both uses) |
| Exit grant conditions | | | | |
| - sale of farm | no | yes | yes ^^ | yes |
| - 5 year exit from industry | yes | yes | yes ^^ | yes |
| - 5 year exit from agriculture ^^ | no | yes | yes ^^ | yes |
| Income test for welfare support | | | | |
| - threshold for maximum grant | ~ | .. | ~ | < A\$3,224 # |
| - cut-off for exit assistance | ~ | .. | ~ | > A\$31,178 |
| Non-farm assets test for welfare support | | | | |
| - threshold for maximum grant | ~ | .. | ~ | < A\$217,500 # |
| - cut-off for exit assistance | ~ | .. | ~ | > A\$485,000 |
| Income support | | | | |
| - maximum grant | ~ | .. | ~ | A\$18,736 ## |
| - taxable | yes | .. | yes | yes |
| - maximum period of support | 12 months | .. | 12 months | 12 months |

* Confirmed loan refusal from financial institution.

Sources: AFFA 1999c; Centrelink 2004, 2005b, 2005c; DAA 2000i.

** No requirement to have qualified for income support payments. Enterprise viability test not required.

*** Applies to net assets after the sale of the farm enterprise. No exit grant is paid if specified cut-off point is exceeded. For DEP and AAA Farm Help exit grant is reduced by A\$2 for A\$3 of net assets above the threshold.

**** Income support payments deducted from the exit grant. DEP deducted DSAP/SDA payments from exit grant.

^ Grower required to exit the industry between February 2003 and June 2005. Grant reduced to A\$75,000 if exit occurs in 2005-06 and A\$50,000 if exit occurs in 2006-07.

^^ Exit grant not taxable if the grower sells the farm and leaves agriculture. Grant is taxable if the grower leases or sells essential sugar industry assets, retains the farm and diversifies into other forms of agriculture.

^^^ Farmer agrees not to become a farm owner or operator for five years.

Newstart conditions for two people in partnered family situation (homeowners) at 30 June 2005.

Newstart allowance (A\$360.30 per person per fortnight) for two people in partnered family situation for 12 month period.

~ PPEP used the AAA Farm Help program for income support - payments deducted from PPEP exit grant.

SIRP 2004 income support based on Newstart rates. Income and non-farm assets tests equivalent to Farm Help program.

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