



Australian Government
**Rural Industries Research and
Development Corporation**

Coping with change – farm level adjustment and policy reform

The two experiences of policy reform demonstrate that farmers were able to adjust to a significant change in market conditions caused by reductions in support.

The impact of both reforms was not as severe as expected and the transitional assistance helped to facilitate the structural change.

The key principles were the assistance was provided for a limited period and market prices directed the adjustment.

Farmers make structural changes that can improve industry performance when their income position changes;

Income support weakens the incentive to make adjustments – farmers are less responsive to the change in returns that come from policy reform.

The Australian experiences indicate the best approach is to use limited, short term assistance that does not dictate the way farmers should respond;

The income effects of the change in market returns should be allowed to shape the adjustment process.

Agricultural structural adjustment is often portrayed as a process of decline involving farmers being forced to leave their farms. It is a perception associated with the pressures to improve farm performance in order to obtain a satisfactory farm income. In reality this is a limited perspective of a process that has more to do with self-improvement and industry development.



What is structural change?

Farmers are continually faced with pressures to adjust to changing economic conditions. It's an inevitable outcome of the way market developments affect returns from agricultural production. In simple terms structural change reflects the decisions by farmers to continually adjust the size and the nature of their farming operations. The changes are often incremental and it can lead to a gradual reduction in the number of farmers and farm holdings.

Structural adjustment is about coping with change and it's evident in the agricultural sectors of all countries. Change is occurring in both developed and developing countries irrespective of their stage of economic development. It involves two types of change:

- farmers are working to improve the physical and financial performance of their farms;
- at the same time there are new people entering agriculture and others in the process of leaving the sector for other jobs or to retire.

The relationship between structural change and industry development can be seen in the changing fortunes of individual industries. Farmers enter or exit an industry after considering the potential risks and returns. As market returns change farmers generally respond by expanding or reducing their involvement in the industry. This could involve decisions affecting:

- the size of the farm, the scale and intensity of production, the diversity of farm output or the need to find ways to supplement their income;
- it could also involve a decision to leave the industry or to leave agriculture altogether.

These farm level changes are generally reflected in the longer term expansion or contraction of different industries. Pressures for change can arise from market developments such as declining prices. But it can also arise from policy changes that have a similar impact on market returns.

Rather than interfere and attempt to direct the process of adjustment, government policies should aim to 'facilitate' the change.

Individual farmers are in the best position to decide how to respond to the pressures for change.



*Mandalong Grain Fed Lamb is the "brain child" of country entrepreneur Mark Taylor. The business evolved from a New England lamb feed-lotting venture to alleviate the impact of drought effects. Proprietor Mark Taylor, initially went "door knocking" in the northern suburbs of Sydney, selling his products to housewives, and has now grown into a thriving business supplying the top end of Australia's east coast food service industry. Source: <http://www.mandalonglamb.com.au/company.html> and *Options for Change- New Ideas for Australian farmers*, RIRDC Publication 03/030*

What should we do about structural change?

Structural adjustment is an essential ingredient for improvements in farm performance and the movement of resources between industries. Economic principles suggest competition and facing undistorted world price signals creates the incentives for this to occur. Farmers in this situation are encouraged to make rapid changes that will maintain or improve their profitability:

- it leads to higher productivity and improved industry competitiveness;
- productivity gains are the key to income growth and increased individual wealth.

This suggests government policies should not be used to discourage or try and stop the process of structural change. It is a necessary and important aspect of industry growth and development. Import protection and industry support programs cannot remove the pressures for change – but it can distort the adjustment process and reduce the prospects for wealth creation.

Rather than interfere and attempt to direct the process of adjustment, government policies should aim to 'facilitate' the change. In simple terms this means letting the resource adjustments happen but in a way that manages any major social welfare and equity issues that could arise. The alternative approach of providing long term support has unintended consequences:

- it distorts decision making by diluting the incentive to improve farm performance;
- it promotes a reliance on government support which affects industry competitiveness and the prospects for future growth.

The big issue is structural change from policy reform

Government attempts to prevent structural change will ultimately fail. In the mean time it can distort the way farmers use their resources which can have longer term costs for individuals. Farm business decisions become driven by political decisions on government handouts and other policy settings. The incentive for self reliance and self-determination is stifled and this can lead to an inferior farm performance and stagnation.

Individual farmers are in the best position to decide how to respond to the pressures for change. To do this they need clear signals on what the market will pay for their output. Short term policy measures can distort the way farmers react. This will occur if they incorporate incentives to take a particular course of action based on the views of well meaning policy makers.

Policies that try to deflect the pressure for structural change include long term support measures used by the major developed economies. Import protection, market price support and direct income supplements are used to assist industries such as dairy, rice and sugar. Calls for reform of these types of policies have become a major issue for the WTO trade negotiations.

The question that often arises is the ability of farmers to cope with the pressures for change that flow from policy reforms. The domestic impact of reform is an important issue. Governments are often reluctant to reduce support for highly protected industries because of concerns about the capacity of farmers to adapt to the new market conditions.

Structural adjustment in Australia

In considering this question it is worthwhile examining some recent experiences of policy reform and structural change in Australia.

Long term trends show structural change has been an integral part of industry developments throughout the rural sector. Over time the number of farms has declined and farms have been getting bigger.

In general output per farm has increased as farmers have used their primary resource base more intensively to generate an income required to sustain their lifestyle. Some key developments associated with structural change in Australia include:

- farm numbers have declined by about 13% over the past 10 years;
- about 45% of farms have an off-farm income – up from 30% in the early 1990s;
- the average farm size has increased by 23% over the past 20 years; and
- productivity growth has increased by almost 3% a year over the past 30 years.

In Australia the pressure for change has been mainly driven by market conditions. Government support is limited and most industries are exposed to global trading 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.

It is an accepted principle in Australia that agricultural adjustment is a continuous process caused by changes in economic conditions. Farmers are highly responsive to changes in net returns and their effects on farm income. The adjustment process involves farmers leaving or entering an industry. It also involves farmers expanding or reducing their involvement in the industry.

Australian assistance to facilitate adjustment

Australian experiences with structural change indicate farmers have considerable resilience and a capacity to adapt to changing market conditions. In general the government promotes self-reliance in the way farmers respond. But the Australian Government has also recognised there can be a social dimension to the effects of structural change.

The best response to the pressures for change is to let individuals decide how to react. But for various economic, social and political reasons the government

believes some farmers may require transitional assistance in certain circumstances. As a 'second best' solution policy advisers have to balance this response against the costs imposed on other parts of society.

There are several assistance programs to help farmers cope with the effects of structural change (table 1). The assistance is available through a government initiative called *Agriculture – Advancing Australia* (AAA). Programs focused on the effects of structural change include:

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

Farm Help is a welfare safety net to help farmers in financial difficulties. Eligibility is limited to farmers who can't borrow against their assets. It offers income support for up to 12 months while farmers consider their options for change. The assistance is paid at the same rate as social security payments for the general community and is subject to an income test and a non-farm assets test:

- income and asset tests are used to target the assistance to those in most need.

1. Adjustment assistance for Australian agriculture

	Availability of programs		Assistance	
	period	years	A\$m	A\$m per year
AAA package	1997-98 to 1999-00	3	525	175
AAA package, extension one	2000-01 to 2003-04	4	380	95
AAA package, extension two	2004-05 to 2007-08	4	305	76
- <i>Farm Help</i> program			135	34
- <i>FarmBis</i> program ***			133	33
- <i>Rural Financial Counselling service</i>			23	6
Farm Management Deposit Scheme	2000-01 to 2004-05	5	930	186

AAA funding based on announced budget allocations for the programs.

Source: Harris 2005b.

FMD assistance based on Department of Treasury estimates of taxation revenue forgone.

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The program also offers assistance for examining options to improve the financial position of the farm or to retire from agriculture. There is a grant of up to A\$5,500 for training and professional advice. There is also a tax-free re-establishment grant of up to A\$50,000 for farmers who decide to retire. The exit assistance is subject to an assets test and recipients have to sell their farm and are not allowed to own or operate a farm for five years.

The *Rural Financial Counselling Service* provides advice to farmers and rural businesses facing financial difficulties. This could involve financial situation assessments or the preparation of loan applications. Counsellors also help farmers to access other 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.

The *Farm Management Deposit* (FMD) scheme is a cash flow management tool. It allows farmers to set-aside pre-tax income in profitable years which can be used in years of low income that may be caused by events such as drought or low prices. The tax payable on an FMD is deferred until the money is withdrawn provided it is maintained for 12 months.

FMDs are held by farmers and are only available to individuals with an 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. The scheme helps farmers to manage the annual fluctuations in net farm incomes caused by changes in market returns and seasonal conditions.

Adjustment to policy reform in Australia

Market related developments have not been the only source of pressures for structural change in Australia. Over the past 10-15 years a number of industry specific policy reforms have been implemented. In several cases the resulting change in market conditions created substantial pressures for farm level structural adjustment.

Major policy reforms involving reductions in support will often generate political pressures for some other form of assistance. The reaction is no different in Australia. There is a tendency to paint a bleak picture about of the effects of reform. Concerns are often raised about the capacity of farmers to cope with the change and the risk of a long term industry contraction.

This perspective ignores the fact that past experiences have shown Australian farmers are highly resilient and dynamic respondents to economic change. The concerns about the effects of reform often prove to be overly pessimistic. The evidence indicates farmers respond rapidly to the new market conditions and after a period of adjustment the industry's performance improves:

- most farmers react by focusing on farm performance improvements and opportunities for earning supplementary off-farm income;
- there is not a mass exodus of farmers being forced to leave their farms but some move into other industries or retire from agriculture altogether.



*The Bramble Patch near Stanthorpe, Queensland had been a purely commercial berry farm until an early-morning frost in 1996 which left Don and Patsy Stirling's fruit unsuitable for market. This necessitated Don to find an alternative use for the berries so they started producing hand-crafted jam, sauces, vinegar, liqueurs and wines - all from the frost damaged berries which were ideal for the value-adding process. The boutique bottling facility pictured here continues the quality focus from bottling right through to the label on the jars. Source: <http://www.bramblepatch.com.au> and *Options for Change-New Ideas for Australian farmers*, RIRDC Publication 03/030*

Transitional assistance for policy reform in Australia

Australia does not give long term compensation to the 'losers' of policy reform. But transitional assistance has been provided in certain circumstances. It usually reflects the social welfare and equity issues associated with the effects of the reform. The key principle in providing assistance is to use measures that will facilitate change and the transition of resources.

Two recent experiences of Australian policy reform are worth examining. They demonstrate the relationship between a major policy reform and the subsequent structural change. They also used different approaches in the provision of transitional assistance. The two examples are:

- the dairy industry and the overnight elimination of market support following a lengthy period of phased reductions in assistance for manufacturing milk; and
- the citrus industry and a phased reduction in tariff protection.

Dairy deregulation was an unusual experience in policy reform. It was the final act of a reform process

that began 14 years earlier and was supported by most of the industry. Following two years of discussions between the industry and government the decision was announced nine months before it was implemented and there was some uncertainty about the implications for milk prices. Initially average returns fell by up to 18% in the states that focused on fluid milk sales and there was a substantial reduction in farm incomes.

A number of dairy farmers retired from the industry – farm numbers declined by more than 17% during the first three years of a deregulated market (table 2). But most other farmers reacted to the decline in returns by expanding output. After a short period of adjustment there was a recovery in milk production and the industry's export performance has been maintained.

The government provided restructuring assistance to help farmers adjust to the effects of the reform. Transitional assistance



worth A\$1.74 billion was provided to all farmers in the form of a grant based on their individual exposure to the price support measures. The grants were an explicit payment in place of the implicit assistance that would have been obtained if a phased approach to reform had been adopted.

The dairy assistance was decoupled from current or future production decisions. There were no conditions on how the grant could be used and no requirement to exit the industry. Most farmers who remained in the industry used the grant for financial and on-farm restructuring.

Structural change in the citrus industry is a more typical experience of trade related policy reform. It was a phased approach

2. Australian dairy industry adjustment to policy reform

Year ending 30 June		1999-00	2000-01 *	2001-02	2002-03 **	2003-04 **
		pre-reform		post reform period		
Number of farms	number	12 896	11 839	11 048	10 654	9 611
	change	-260.0	-1 057.0	-791.0	-394.0	-1 043.0
Output per farm	'000 litres	842	891	1 020	969	1 048
	% change	8.8	5.9	14.5	-5.0	8.1
Herd size	head/farm	168	184	192	192	211
	% change	2.8	9.1	4.5	0.1	9.7
Milk yield	litres/head	4 996	4 847	5 309	5 038	4 965
	% change	5.8	-3.0	9.5	-5.1	-1.4
Milk production	m litres	10 847	10 547	11 271	10 326	10 075
	% change	6.6	-2.8	6.9	-8.4	-2.5
Dairy product exports	'000 tonnes	776	729	786	722	647
	% change	17.8	-6.1	7.8	-8.2	-10.3

* Market deregulation occurred on 1 July 2000.

** Widespread drought conditions.

Source: Harris 2005a.

to reform where orange growers were given time to adapt to a change in market conditions. From 1988-89 the industry had to adjust to a reduction in the tariff on frozen concentrate orange juice (FCOJ) from 35% to 5% over an eight year period.

The effect of the reform was amplified by a decline in the world price for FCOJ. Market prices for processing fruit declined by 45% during the implementation period. Some growers left the industry and some diversified into other products. Others changed their fruit varieties to reduce the dependence on processing fruit sales (table 3). There was no long term industry contraction and the industry's export performance has significantly improved.

The citrus reform was implemented in a way that provided implicit transitional assistance as growers did not have to immediately absorb the full effect of the tariff cut. The pressure on returns led to industry requests for extra assistance. The government responded with an

A\$8.4 million industry development program towards the end of the implementation period.

The citrus program provided assistance for projects aimed at improving industry competitiveness. It did not provide any direct assistance to growers. Instead it provided indirect assistance that encouraged growers to take a particular course of action in their adjustment decisions.

The key point that emerges from these two experiences is that farmers were able to adjust to the change in market conditions. Some older farmers retired and some moved into jobs outside agriculture. Those that remained took steps to improve the performance of their farm business



Orange trees

and in both cases the industry performance improved after a period of adjustment.

The impact of both reforms was not as severe as expected and the transitional assistance helped to facilitate the structural change.

The key principles were the assistance was provided for a limited period and market prices directed the adjustment. It showed that long term income supplements are not required to sustain an industry after the removal of industry support measures.

3. Australian citrus industry adjustment to policy reform

Year ending 30 June		1987-88	1992-93 *	1997-98	2002-03 **
		pre-reform	post reform period		
Total orange crop	'000 tonnes	486	691	566	633
- processing fruit	'000 tonnes	293	397	279	309
	% share of crop	60.3	57.5	49.3	48.8
- export sales	'000 tonnes	48	82	117	133
	% share of crop	9.9	11.9	20.7	21.0
Gross value of production	A\$m	151	215	258	337
Unit value of production	A\$/tonne	306	344	516	562
Sales of processed orange fruit	'000 tonnes	292	450	487	655
FCOJ imports ^	'000 tonnes	14	64	229	378
- market share	% share	4.8	14.2	47.0	57.7
World price of FCOJ	A\$/t	3 338	1 206	1 288	1 496
- price in Australian market	A\$/t	4 547	1 595	1 555	1 807

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

** Widespread drought conditions.

^ Fresh fruit equivalent.

Source: Harris 2005b.

Conclusions

Adjusting to the pressures for change is an inevitable aspect of industry development. Australian 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. But the Australian experiences show farmers can successfully adapt and there is no reason farmers in other countries could not do the same.

The two experiences of policy reform demonstrate that farmers were able to adjust to a significant change in market conditions caused by reductions in support. Some older farmers retired and some moved into jobs outside agriculture. Those that chose to remain were not passive market participants. They took steps to improve the performance of their farm business and in both cases the industry performance improved after a period of adjustment.

The impact of both reforms was not as severe as expected and the transitional assistance helped to facilitate the structural change. The key principles were the assistance was provided for a limited period and market prices directed the adjustment. It shows that long term income supplements are not required to sustain an industry after the removal of market support measures:

- farmers make structural changes that can improve industry performance when their income position changes;
- income support weakens the incentive to make adjustments – farmers are less responsive to the change in returns that come from policy reform.

The aim of transitional assistance for policy reform should be to



Evedon Park Bush Resort

The Jenour family have farmed the property at Evedon Park since the late 1960s. The property supported beef cattle, fat lambs and dairy cattle over the years. In 1984 they diversified into a bush resort and since then have gradually grown the development so that it is now a popular venue for conferences, seminars and meetings as well as bush holidays.

Source: *Options for Change-New Ideas for Australian farmers*, RIRDC Publication 03/030

facilitate change rather than provide a longer term welfare payment which can stifle the incentive for self improvement. The best way to facilitate structural change is to make the full impact of the reform transparent. This also means transitional assistance will be more effective if it is transparent.

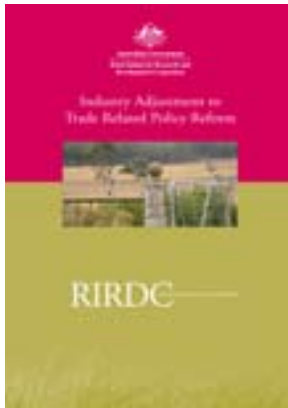
A phased approach to reform was used for the Australian citrus industry. It delayed the full impact on farm returns and gave growers time to adjust. This approach provides some implicit transitional assistance but it can lead to a longer adjustment process. It is not a transparent form of assistance as it gets mixed up with others factors affecting market returns.

An overnight approach was used for the final act of reform in the Australian dairy industry. It included a one-off restructuring grant instead of the implicit assistance from a *phased approach* to reform. The assistance was transparent and farmers

got immediate, undistorted price signals on the full effects of the reform. It created a strong incentive for farmers to immediately assess their future prospects and consider their options for change.

Coping with change is not easy. When faced with the effects of policy reform farmers will adjust in different ways. It depends on individual circumstances and the opportunities to improve the physical and financial performance of their farms. The social dimensions of change can be managed with transitional assistance as an element of the policy reform:

- the Australian experiences indicate the best approach is to use limited, short term assistance that does not dictate the way farmers should respond;
- the income effects of the change in market returns should be allowed to shape the adjustment process.



Industry Adjustment to Trade Related Policy Reform
by David Harris

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.

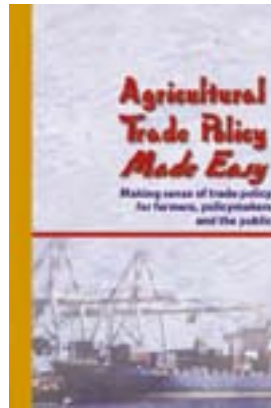
RIRDC Publication No. 05/173, 110 pages, \$26



Industry Adjustment to Policy Reform – A case study of the Australian dairy industry
by David Harris

The Australian dairy industry has recently experienced a policy reform that involved the over-night removal of all price support mechanisms. It was an unusual event because policy changes are usually phased-in or announced with several years warning. In this case farmers had limited time to prepare for the effects of the reform. Consequently the Government provided restructuring assistance worth A\$2 billion to help farmers adjust to the new market environment. This publication shows how farmers reacted to the effect of a substantial change in industry support.

RIRDC Publication No. 05/110, 99 pages \$21



Agricultural Trade Policy Made Easy
By A. Stoeckel and G. Reeves, Centre for International Economics

Demystifies the language of international trade negotiations and promotes greater understanding among primary producers and the broader community. (Also translated into Spanish and Portuguese)

Australian agriculture is highly dependent on world markets for its prosperity. However, many of these export markets face extensive barriers to trade through a combination of border restrictions and domestic support. In other markets Australian agriculture must compete with subsidized exports from other countries. Australian governments and farmers have campaigned against these barriers for years. A problem with the agricultural negotiations is the complexity of the concepts used to tackle the various forms of farm support. This booklet on agricultural trade policy aims to make sense of the complex concepts of agricultural policy for farmers, policy makers and the public. With better understanding of what is at stake and why, better decisions will follow.
RIRDC Publication No 04/170; \$15 (Also translated into Spanish and Portuguese)

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RIRDC Short Report No. 06/140

This paper is by David Harris and is based on the findings of two RIRDC reports on adjustment to policy reform – Harris 2005a, *Industry adjustment to policy reform – A case study on the Australian dairy Industry*, RIRDC Publication No. 05/110, \$21 and Harris 2005b, *Industry adjustment to trade related policy reform*, RIRDC Publication No. 05/173, \$26.

These reports belong to RIRDC's diverse range of over 1500 research publications and are part of our Global Competitiveness R&D program which aims to identify important impediments to the development of a globally competitive Australian agricultural sector and support research that will lead to options and strategies that will remove these impediments..

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