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**Profitable Lychees - A Sound Reason  
for Increasing Milk Production?**

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## **PROFITABLE LYCHEES - A SOUND REASON FOR INCREASING MILK PRODUCTION?**

I've been asked to speak to you today about some of the conclusions emerging from work I've been doing on agricultural marketing regulations in New Zealand. Given my audience it's unnecessary to spend time setting the scene in any detail. You'll know that New Zealand's agricultural marketing arrangements feature extensive regulation and restrictions on choice, and the debate over their pros and cons is longstanding, continuing and at times quite doctrinaire. Unlike those relating to most other areas of the economy, this particular regulatory debate is yet to be resolved.

Intervention versus competitive markets - that's what the debate's all about. But then, when it comes to issues of regulation and public policy, isn't that what the debate's always about? What's intriguing to an outsider is how agricultural marketing has held out against the comprehensive and increasingly widely supported deregulatory changes in the New Zealand economy - including in agriculture's production sector. That topic, with particular emphasis on its political economy, would be a substantial conference paper on its own.

The main focus of the debate seems to be marketing methods. How can New Zealand make sure it doesn't get taken to the cleaners when exporting into a harsh, distorted and unfair international market place? While there are significant differences of approach between the major rural industries, they all have in common a philosophical thread which says producers must cooperate to survive. In some of the major industries this extends to regulations which make sure they do cooperate. The regulations ensure it's cooperate or don't participate - such is the restriction on choice.

Regulations and structures which coordinate and discipline market players are argued by some to be essential if New Zealand farmers are not to become peasants. Others, far from convinced that this fear would become reality in the absence of regulation, are concerned that restrictions and monopolies suppress ideas, innovation and capitalising on opportunities, and that there are inadequate means of accountability and sanction when it comes to measuring performance and responding to it. I'll return to some of these points - albeit briefly - later. What I want to do now is talk about lychees.

This brings me to the only diagram I intend to use today. This diagram, I'm sorry to say, has no asymptotic curves, no tangential straight lines, no undesirable rectangles or triangles, and no axes marked price or quantity. It does, however illustrate some important economic principles.

The diagram is the label from a can of lychees I recently had the pleasure of consuming. The lychees, according to the label, are the produce of Thailand. They were purchased from a supermarket in the New South Wales country town of Yass - better known for its super fine wool than lychees. Most importantly, given my subject today, the label tells us the lychees were marketed in Australia by a company called Riviana.

Riviana is an Australian-based company wholly owned by the New Zealand Dairy Board. Being of a charitable nature, I assume Riviana is a profitable enterprise. I'm sure New Zealand dairy farmers would only be interested in owning an investment which was profitable. I'm less sure, however, they're aware their board markets lychees.

So, the question I want to focus on is: Where do Riviana's profits go? It's my contention that this apparently mundane question goes to the heart of one of the major faults of agricultural marketing arrangements in New Zealand.

To answer my own question: Riviana profits are distributed to New Zealand dairy farmers. However, they are distributed as part of the price these dairy farmers receive for their milk. It's the only way they can be distributed. Hence, by logic which is elegant if only because of its simplicity, the profit from my can of lychees, the product of Thailand and marketed in Australia, encouraged a marginal increase in New Zealand milk production.

This is an economic cause and effect relationship one would expect to find behind Alice's looking glass. How did it move from there to reality? To answer that question you need to go back to the origins of current regulations, and the producer philosophy and objectives underlying them.

Most of the existing regulations originated or underwent major modifications during periods of low producer prices. Producers, who are a long way from the markets and busy doing what they're best at which is production, wanted solutions to what they considered unsatisfactory farm gate returns.

Two major reasons for poor returns were invariably identified. The first was that processors and marketers were believed to be under-exploiting market opportunities and lowering returns by unnecessarily competing with each other. The second and somewhat contradictory reason was the belief that businesses beyond the farm gate were making profits at producers' expense.

Given the producers' objective of wanting to improve farm gate prices, the solution they grabbed was as logical to them as it was satisfying to implement. If they could take over operations beyond the farm, and ensure everyone behaved in a coordinated and disciplined fashion, then by definition, it would seem, production would be marketed in their best interests.

This is how producers set off down the path of largely involuntary off-farm investment in processing and marketing. While the extent of this investment and associated regulations varies between industries, producers in most industries have been required to make some off-farm investment in marketing.

It's akin to vertically integrating the farm with all or some aspects of processing and marketing. While there is nothing wrong with vertical integration in a competitive market, in New Zealand agriculture it produced a plethora of boards, commercial subsidiaries, and cooperatives - the structures producers chose to pursue their objective of better farm gate prices.

The consequences of choosing better farm gate prices as the primary objective, and having the marketing structures it led to, are quite profound, and shed light on many features of the so-called marketing debate. Probably the most important consequences arise because farm gate prices are a bundle of returns from different investments.

The farm gate price is a commercial cocktail which can contain returns from the producers' output sold in a variety of markets paying different prices, returns from trading the same products produced in other countries and products unrelated to the industry, and returns from privileged market access where it exists. Put in simplified terms, the farm gate price bundles returns from the farm investment with returns from other investments but in a manner which has the producer thinking it is a return to farm production only.

A situation exists in all major industries whereby the individual farmer compares marginal cost to produce with a return at the farm gate which invariably exceeds the marginal revenue received in the market place for the output. The only variation between industries is the size of this difference and hence the extent - assuming similar supply elasticities - of the production and valuation distortions it creates.

Much is said in the marketing debate about the ability of coordinated and disciplined marketing to improve market returns and farm gate prices. The underlying economics is that of the discriminating monopolist. It can be readily demonstrated, and many researchers have, that if demand characteristics differ between markets and certain market separation conditions are met, then a single or coordinated seller can deliver gross revenue higher than would be achieved from competitive marketing.

The potential of international markets to allow this form of behaviour is a contentious matter. Certainly, in the longer term, the benefits of the discriminating monopolist are eroded by competition from other suppliers and substitutes. It's extremely difficult to hide success and prevent others from attempting to get a slice of the action. The limited empirical research relating to New Zealand that I have seen confirms this conclusion.

However, if it is assumed that market characteristics will allow the discriminating monopolist some success, then this success will only be maximised by the monopolist controlling the supply coming forward for sale. A bundled farm gate price prevents this from happening. The commercial cocktail received by the producer invariably leads to more output than the discriminating monopolist needs. The discriminating monopoly benefits are dissipated because the marketer cannot control production.

This problem, arising from the bundled return, does not disappear if, as I believe, the ability to be a discriminating monopolist is very limited or non-existent. This is because the farm gate price, even in circumstances where the New Zealand marketers do no better than anyone else, contains the return to off-farm investments in processing and marketing. Producers receive more for their marginal production than it is actually sold for. They over-produce relative to what the market will buy at the prices they are receiving.

If a farmer had shares, say in the retailing sector, it's implausible that the return from that investment would lead to increased farm production. The farmer's decision - commonly enforced by regulations - to invest off-farm in processing and marketing is analogous. Farming, processing and marketing are separate investments. The level of farmer investment in each should be determined by their respective profitability. Furthermore, many farmers may only want to invest in farming.

The problem occurs in all the major rural industries. Lamb production should not necessarily increase because Meat Board investment in Japan, or in pet food in Australia, is profitable. If the Wool Board's new marketing company is profitable then its owners, that is woolgrowers, should receive a dividend which would not be a reason for increasing wool production.

Obtaining a windfall profit in the UK butter market because New Zealand has a quota is definitely not a reason to increase milk production. The same applies in the case of profits from marketing lychees.

The bundling of returns from farm and off-farm investments means existing regulations and structures distort resource use and incur economic costs, regardless of whether or not they are effective in raising market returns for producers' output. If they are successful in this latter role, the distortions are simply greater with current arrangements.

I'll return shortly to what is an obvious and beneficial solution to this distortionary problem of the bundled return. However, I want to comment first on some other implications of the emphasis producers have placed on maximising farm gate prices.

The performance of those in the boards and cooperatives is judged on how well they maximise the bundled return. The emphasis in all industries is on changes in farm gate prices. Relatively little attention is paid to returns on investment or profitability of the separate investments.

This places the marketers on a hiding to nothing. Producers reward their commercial success by producing more regardless of the exact reasons for the farm gate price rising. The extra output has to be sold, usually requiring lower prices to achieve market clearance. This pushes the bundled return down and exposes the marketers to criticism for not achieving their objective. The sale of butter to the former Soviet Union in 1990/91 at prices below the GATT minimum is an example of these consequences.

One might conclude from this logic that New Zealand's agricultural marketers are among the best in the world because the more successful they are at raising farm gate prices, the more output they have to get out and sell, even if the market doesn't want it. One wonders whether the tireless butter marketer appreciates the extent to which his workload is partly the consequence of the lychee salesman being so successful.

These unenviable circumstances explain much of the marketer behaviour and rhetoric so characteristic of the debate in New Zealand. For example, they explain why regulated marketers place so much emphasis on maximising quality; exhorting producers to raise quality and often using the regulations to make sure they do.

All markets exhibit quality/price relationships. While there are clearly price premiums for superior quality, there are also profitable markets for lower qualities if they are labelled and priced appropriately. However, under many current marketing arrangements there is a disincentive for the marketers to encourage or allow lower quality output to be marketed even if it can be sold profitably. It would lower the average farm gate price measure on which marketer performance is judged.

These incentives to keep raising minimum quality standards can be seen at work over recent seasons in the kiwifruit industry. In one season, minimum export standards were even raised during the year causing considerable consternation amongst growers, and leading to a regulatory change to prevent this happening other than at the beginning of a season.

It has occurred to me that in the circumstances I'm describing the easiest way for a regulated marketer to maximise farm gate prices, as reported, would be to export only one container of product of spectacularly high quality. I presume this extreme action is not taken because its absurdity would be apparent.

The producer focus on maximising farm gate prices also explains why the debate is so heavily concentrated on how well marketing functions are executed. Performance assessment and reporting revolves around indicators of marketing activity and practice, and measures of unit returns, sales turnover and market shares. This tells us little about profitability. However, it's somewhat unfair to ask marketers to maximise farm gate prices within existing structures, and then criticise them for actions which prevent satisfactory measurement of investment returns, and demonstrably constrain profit maximisation in the national interest.

Let me now return to possible solutions to the economic distortions created by bundling.

One possibility would be to administratively constrain output - production controls of some type. I consider this a very unsatisfactory option for a host of reasons that have been well researched and demonstrated. I also think it would be unacceptable to most producers. However, before I move on it's worth noting that marketers have demonstrated some understanding of the need to restrict production under current regulatory structures.

The dairy industry flirted with a production control instrument in the mid-1980s. The apple industry's proposals for raising the second tier levy and introducing transferable crop certificates - eventually thrown out by the Privy Council - was an attempt to constrain production growth even though this was not its stated purpose.

Only last week I saw a media report about a dairy cooperative that has had a moratorium on new suppliers for some months and aims to alter its structure to ensure it raises more capital from those suppliers demanding increased processing facilities. Finally, I think that in some industries the control of minimum quality standards is used as a fairly blunt instrument for production control.

The alternative, and I think far more desirable approach to the bundled return problem, is simply to unbundle the return. Deliver to the farmer an output price which will call forth that quantity of production which can be processed and

marketed profitably, and deliver the remaining part of the return separately, essentially as a dividend on off-farm investment in processing and marketing.

Taking the dairy industry as an example, let's assume that nothing else changed except that the board and the cooperatives were restructured into a more standard corporate form with the equity given to dairy farmers and only able to be traded amongst them. This structure would differ from current marketing arrangements *only* insofar as it would require these organisations to work in the interests of dairy farmers in their capacity as *investors* in the organisations, rather than in their capacity as *suppliers* to the organisations.

The importance of this distinction was highlighted by AFFCO's Chief Executive when, in his 1991 Annual Report, he said that as a cooperative the "Company has consistently failed to separate the interests of its shareholders and suppliers. While the company has had to pay competitive prices for livestock, the need to produce commercial rates of return on shareholders' funds has not been given priority." He concluded that "as a consequence the Company's performance overall has been unsatisfactory."

Returning to the dairy example, the separate posting of output prices and other returns may mean that dairy farmers receive less for their milk the day after the change, but it will not be a distorting price anymore. They will, however, also receive a dividend and be able to exercise investor choice. The choice decision will be based on how they view the share price and the dividend - indicators of performance which are far more useful than those currently available.

The same types of changes could be made to boards or their business subsidiaries in other industries with the same beneficial consequences. In fact, it's hard to see any reasons why producers, cooperatives or the boards would not be keen to ensure this happens expeditiously.

The discussion so far has concentrated on the case for unbundling the farm gate price and I have not considered the issue of regulations constraining competition and choice. Such regulations are not costless. There is valid suspicion about the efficiency of organisations not exposed to competition and conventional market sanctions. There is reasonable concern that not all opportunities and ideas are being exploited. For conclusions in these areas one looks to logic and evidence from within the industries, in New Zealand and internationally, and from other parts of the economy.

I think when it comes to performance measurement one of the most striking consequences of agricultural marketing regulations and the structures they underpin is the absence of useful information on commercial performance, and the frequent lack of competitive performers against which comparisons can be made. As I have already noted, measures of activity tell you nothing useful about commercial performance.

A useful place to look for evidence that the introduction of competition delivers better performance are those areas of the New Zealand economy where this has occurred. One is port reform where farmers have seen and benefited from improved efficiency and significantly reduced costs. The same applies for financial and labour

market reform. Improved productivity in the transport, energy and communications industries reflects the benefits of being exposed to incentives and sanctions of the type found in the competitive private sector. It needs to be recalled that in all these areas the prior message from supporters of the status quo and those in the monopoly organisations was that they were efficient businesses keeping costs to a minimum and maximising innovation. "If it ain't broke, why fix it?" was the refrain.

In my research I've come across and documented numerous cases where ideas were discouraged or suppressed, and investors deterred, because of regulatory barriers or concerns about the regulations changing unexpectedly. There are also numerous instances where foreign investors simply by-pass New Zealand because they see agricultural regulations and monopolies blocking opportunities. Why should they bother when they can go to Australia, Argentina, Brazil or Chile, just to name a few.

It is frustrating and disappointing to see New Zealand's rural producers forgoing the opportunities which would flow from this investment, and the ideas, skills and market connections it would bring.

The suggestion of more competition in marketing invariably brings the response that competitive exporting from New Zealand will lower producer returns. Only where genuine market power opportunities exist will this be the case on any systematic and continuing basis. The UK butter quota is an example at the extreme. Competitive exporting to this market would erode and possibly lose completely the quota premium the British have made available to New Zealand, in part as compensation for lost markets. However, a single seller monopoly is not the only means to capture the premium and the existing regulations in New Zealand ensure most if not all of it is dissipated by supply response distortions anyway.

Beyond this particular example I've found it extremely difficult to find evidence of significant market power available to be exploited by a "New Zealand Incorporated" approach to marketing. In cases where the exports are of a commodity type there are invariably other suppliers and very limited bases for product differentiation. In cases where the product can be differentiated, particularly by value adding and branding, then so-called weak selling would seem to be an irrelevant issue.

Then there are substitutes to consider. All New Zealand's agricultural exports have readily available, close substitutes. In today's competitive and price conscious markets it is extremely difficult to prevent consumers from switching products when price differences emerge. Finally, let us not forget all those competitors in the importing country or in third countries. No one has yet explained to me how New Zealand's regulated marketers are going to stop these producers from "weak selling".

I have only been able to address the important issues of regulatory inefficiencies and market power superficially today. This partly reflects the emphasis I wanted to give to the bundled return and its consequences. I would like to conclude by issuing a couple of challenges in regard to the bundling issue.

I have argued that the simple and readily available solution to the bundling problem is to corporatise boards, their commercial subsidiaries and cooperatives, and place the shares in the hands of producers. If nothing else changed and only producers could trade the shares, arguments about the pros and cons of regulations which control and compel certain forms of marketer behaviour do not arise immediately.

My first challenge, therefore, is to producers and those responsible for their processing and marketing organisations. What possible arguments could there be against privatisation on the constrained basis I have suggested? Distortions would be removed and performance transparency would be improved.

There are two possible reasons why the corporatisation option may be unattractive to some. The first is that the benefits claimed for existing structures may owe more to rhetoric than substance. Maybe, dare I say it, they are actually negative. The second reason is that if the distortions are significant, and I believe they are in a number of industries, then some painful asset revaluations are going to have to occur in the course of achieving the longer term benefits.

This latter point brings me to my second challenge and it is a challenge to New Zealand's economic researchers. Get out there and research, evaluate and publish your work on the size, significance and economic consequences to New Zealand of these distortions. The profession has a role in this important area of the economy similar to the one it played effectively in the tariff debate. As with tariffs, the distortions are hidden and not appreciated, particularly by those - in this case producers - who continue to believe they are beneficiaries.

I think the process could start with the simplest sort of calculus. Take the dairy industry which I have used as my main example today. New Zealand dairy farmers have approximately \$2.5 billion invested off-farm in their cooperatives and the board. Presume these dairy farmers want a dividend on this investment similar to the average of New Zealand's corporate sector. In the case of dairy, add to this 'normal' investment return the premium from the UK butter quota. I have conservatively estimated this premium in recent seasons at around \$125 million annually. These two figures - a normal return from the off-farm investment and the quota premium - are a reasonable approximation of what dairy farmers should expect to receive before they even contemplate returns to the dairy farm investment.

Now look at MAF estimates of dairy farmer profitability over recent seasons. Compare the aggregate net income in dairy farmers' pockets with what should be received from the off-farm investment alone. Then ask the important questions regarding what resources in milk production are actually returning, and how extensive resource misallocation might be. In other words, what are the current arrangements costing New Zealand?

As a profession, taking up this challenge will not be easy. There is a widespread view that the Dairy Board is a world class marketing organisation. The irony is that, at least on the basis of the issues I have focused on today, I am not challenging the veracity of that claim. In fact, I am suggesting an option which, while removing distortions, would provide us with better, albeit imperfect, information on performance.

As with the tariff debate, and the debate over the labour market, there are many facts which need to be highlighted, and myths that need to be dispelled. Perhaps we could start with the myth that because lychees and cream are joint products in cuisine, they must also be joint products in the economic sense of that term.