

Rewinding the Uruguay Round of Multilateral Trade Negotiations

How has New Zealand Agriculture Benefited?

Introduction

1. The conclusion of the Uruguay Round (UR) of multilateral trade negotiations was touted as being profoundly significant for New Zealand. Some commentators have suggested that the UR outcome is as significant for the New Zealand economy as the advent of refrigerated shipping and the negotiation of the Closer Economic Relationship with Australia as key factors that have shaped and continue to shape the New Zealand economy. Analysts noted that the UR would result in increased economic growth for New Zealand through higher export returns and a more buoyant interdependent world economy.

2. There has been much speculation as to the size of the benefits accruing to New Zealand from the UR, particularly the gains for the agriculture sector, but there has not been the same level of research conducted on a retrospective basis - looking at "what would have been the case" had the UR not been agreed. This paper attempts to partially fill this gap by rewinding the UR and comparing what the reality is against what it might have been without the UR.

Method

3. In order to derive the monetary gains accruing from the UR, New Zealand's main agricultural sectors - beef, sheep and dairy - are assessed. To make this assessment for the dairy sector, the OECD's Aglink model (2000 version) is used. Aglink is a structural econometric model designed to simulate major OECD and world commodity markets, from which a "baseline" result is produced and compared against a counter-factual scenario in order to determine positive or negative outcomes. The baseline results are the OECD's assessment of the year 2000, taking into account UR outcomes and other economic conditions which existed at the time of preparing the baseline solution for the OECD's Outlook publication. However, because the policy coverage of Aglink is largely confined to OECD countries (with most of the rest of the world represented by simply aggregate supply and demand variables) and only the major traded agricultural commodities, it is not possible to determine the full impact of the UR on New Zealand or the full impact on the New Zealand agriculture sector. Furthermore, owing to the limited policy representation for the beef and sheepmeat sectors currently presented in the Aglink model, the results for these two commodities are estimated outside of the Aglink framework.

4. For both the beef and sheep sectors, simple revenue calculations have been made, comparing actual export volumes against export volumes that may have occurred without the UR agreement. These calculations have only been made for the main export destination of each product respectively - the United States (US) for beef and the European Union (EU) for sheepmeat. It is considered that the changes that have occurred in each market as a result of the UR represent the main outcomes for New Zealand. Furthermore, no allowance has been made for the impact on overall beef and sheepmeat receipts from any product diverted to third markets as a result of quota restrictions in the US and EU. At first sight, it might appear that such diverted product would have generated positive returns. However, the thin nature of the relevant world markets for beef and sheepmeat outside the quota markets means that such diversions would likely result in a general lowering of prices for all exports outside the quota markets so, on balance, diverted product may have led to little, if any, improvement in export receipts from non quota markets. In the case of beef, it should be noted that in a non UR situation Australia would also be faced with having to

divert a lot of beef onto third "non foot and mouth" markets, exerting further downward pressure on world markets.

Results

Beef

5. Prior to the UR of trade negotiations, New Zealand's beef exports to the US were subject to the US Meat Import Law (MIL), and as with Australia, New Zealand entered into annual Voluntary Restraint Agreements (VRA) on a regular basis to avoid the introduction of more draconian import measures. Export volumes of beef to the US were set annually under the MIL, with the permissible export volume being influenced by factors in the US domestic beef industry such as the growth rate and expected growth rate of the US beef herd, expected production and domestic demand. The result was an unstable export market which necessitated a lower level of exports from New Zealand being agreed in times of high beef production in the US, compelling New Zealand to find other beef markets or to build up its beef stocks. Conversely, for years when beef production in the US was declining (owing to lower beef stock numbers as a result of higher slaughter rates in previous years reducing breeding stock numbers), New Zealand's export limit was increased. For the calendar year 1994, New Zealand agreed to a VRA of 184,430 tonnes, which was down from 192,777 tonnes in 1993 and 202,665 tonnes in 1992.

6. Under the UR agreement, the US abolished the VRA and increased the level of global beef imports under a tariff quota regime from 552,838 tonnes in 1994 to 656,621 tonnes. New Zealand negotiated a country-specific tariff quota of 213,402 tonnes, 10 percent higher than the average 1992-94 export level (15.7 percent higher than the 1994 export level under the VRA). The in-quota tariff rate remained at 4.4 US cents/kg; the out-of-quota tariff rate was set at 31 percent, reducing to 26 percent over the 1995-2000 implementation period.

7. For the year to 30 September 2000, New Zealand exported 221,892 tonnes of beef to the US (excluding beef offal) which exceeded the country specific quota of 213,402 tonnes, leaving "approximately 8,500 tonnes in excess of the tariff quota limit" (the quota year in the US is a calendar year but when allowance is made for the time required for transport and storage to the US market, it approximates the New Zealand September production year). However, rather than export the additional beef at the higher out-of-quota tariff rate, most of this quantity was held over in "bonded stores" in the US until the 2001 quota was available, at which time it was released at the lower in-quota tariff rate. With an increasing amount of beef production likely to come on stream over the next few years, owing to expansion of the NZ dairy industry (i.e. dairy beef) it is likely that in the future, any beef exports in excess of the quota volume will enter the US market at the higher out-of-quota tariff rate. Prior to the UR agreement, such additional beef exports would have been denied access to the US beef market, with serious consequences for the NZ beef industry.

8. As indicated in Table 1 for the September year 2000, New Zealand earned export receipts from beef to the US of \$914.6 million. Table 1 also indicates the estimated revenue New Zealand would have earned from beef exports to the US if the UR of negotiations had not been agreed (i.e. the US maintained the MIL and VRAs). Assuming that New Zealand "had agreed" to beef exports equal to the average beef exports of 1992-94, maximum beef exports from New Zealand would have only been 193,291 tonnes, 28,601 tonnes less than what New Zealand actually did export. This would have resulted in revenue of \$796.7 million, \$117.9 million less than actual revenues. New Zealand has clearly benefited from increased exports and revenues (due to the expansion of access to the US market), and New Zealand is now able to export beef over and above the quota limit - though any over-quota exports will incur the higher 26% tariff rate.

Table 1: Revenue from Beef Exports to the United States (Year to 30 September 2000)

	6-digit HS Code	Average Price (\$NZ/kg)	Actual 2000 Year Quantity (kg)	Actual 2000 Year Revenue \$	Scenario Non UR Agreement Quantity (kg)	Scenario Year Revenue \$
Frozen	0202.10	2.77	16,429	45,508	14,304	39,622
	0202.20	5.68	519,403	2,950,209	452,300	2,569,064
	0202.30	4.05	217,256,862	879,890,291	189,253,212	766,475,509
Chilled	0201.20	6.84	229,005	1,566,394	199,476	1,364,416
	0201.30	7.78	3,870,127	30,109,588	3,371,376	26,229,305
Total			221,891,826	\$914,561,990	193,290,668	\$796,677,916

Sources: World Trade Atlas (actual), MAF

Note that the volume of each HS code in the scenario year is calculated to represent the same proportion of the total volume of exports that actually did occur in the year 2000. For example, 14,304 kg of 0202.10 represents the same proportion of total exports in the scenario year as 16,429 kg of 0202.10 does in the actual exports for the year 2000.

Sheepmeat

9. The main outcome of the UR accruing benefits to New Zealand's sheepmeat industry was the retention of, and increase in, New Zealand's country specific tariff quota for sheepmeat exports to the EU. New Zealand's country specific tariff quota was increased from 205,600 tonnes to 225,000 tonnes. This was subsequently increased to 226,700 tonnes with the enlargement of the EU. Although a zero tariff rate had been applied to New Zealand's exports prior to the UR, the EU agreed to bind the tariff rate at zero.

10. Of further significance was the termination of the quantitative restriction on the volume of chilled sheepmeat that could be exported. Prior to the UR, New Zealand had been restricted to an increase in total chilled sheepmeat exports of just 1,500 tonnes per year. For the year 1994, New Zealand's chilled sheepmeat exports were limited to a maximum of 13,500 tonnes and without the lifting of this restriction, New Zealand would have been constrained to exporting a maximum of 22,500 tonnes of chilled sheepmeat to the EU in the year 2000.

11. Table 2 indicates the actual revenues New Zealand gained from sheepmeat exports to the EU for the year to 30 September 2000 and the revenues that may have been earned had the UR not been agreed. It is assumed for the scenario year (i.e. non-UR agreement) that New Zealand would have been limited to the agreed 1994 export volume plus the increase arising from the expansion of the EU. Thus, it is assumed that New Zealand could export only 207,300 tonnes of sheepmeat to the EU with a maximum chilled volume of 22,500 tonnes. Because the actual volume of exports in the year 2000 exceeds the maximum allowable volume assumed under the scenario year, the volume of each tariff line for the scenario year has been calculated to represent the same proportion as the actual exports of the respective tariff line within the frozen and chilled categories (e.g. 814,500 kg of chilled exports (0204.10) in the scenario year represents the same proportion of total chilled sheepmeat exports as 976,037 kg does in actual 2000 year exports).

12. Table 2 shows that sheepmeat exports to the EU generated revenue of just under \$1.4 billion for the September 2000 year. This is approximately \$124 million higher than the estimated revenue under a non-agreed UR scenario as a result of the increased quota volume and the lifting of the chilled export restriction. However, of interest is the fact that although New Zealand gained from the abolition of the chilled export restriction, the meat industry only exported approximately 4,500 tonnes over and above what they would have been allowed to export in 2000 without the UR. Although it could be concluded that the New Zealand sheepmeat industry has not taken further advantage of this positive outcome from the UR negotiations, it is likely that this result simply reflects the short time period of this research (i.e. only six years after the conclusion of the UR). It could reasonably be expected that the volume of chilled sheepmeat will continue to rise over the next few years. In other words, if this analysis was conducted in another ten years' time, it is likely

that the proportion of the higher valued chilled exports would be significantly greater. The UR agreement also provides New Zealand with a large element of certainty that that volume of product can be exported to the EU market without restrictions and it is a quota that is very important to the New Zealand sheepmeat industry, as evidenced by the fact that it is consistently filled.

Table 2: Revenue from Sheepmeat Exports to the European Union

	6-digit HS Code	Average Price (\$NZ/kg)	Actual 2000 Year Quantity (kg)	Actual 2000 Year Revenue \$	Scenario Non UR Agreement Quantity (kg)	Scenario Year Revenue \$
Frozen	0204.30	3.68	17,954,549	66,072,740	16,687,440	61,409,779
	0204.41	4.96	25,059	124,293	18,480	91,661
	0204.42	6.04	92,565,039	559,092,836	86,024,400	519,587,376
	0204.43	5.67	88,299,837	500,660,076	82,069,680	465,335,086
Chilled	0204.10	5.00	976,037	4,880,185	814,500	4,072,500
	0204.21	1.85	15,994	29,589	13,500	24,975
	0204.22	8.94	20,143,767	180,085,277	16,796,250	150,158,475
	0204.23	14.10	5,848,088	82,458,041	4,875,750	68,748,075
Total			225,828,370	\$1,393,403,037	207,300,000	\$1,269,427,927

Sources: World Trade Atlas (actual), MAF

Dairy

13. The conclusion of the UR provided New Zealand with two major positive outcomes for the dairy industry. Firstly (and perhaps the most important outcome from the UR for all New Zealand agricultural exporters), members agreed to impose a ceiling on the use of export subsidies at the average 1986-1990 level of the subsidy use, and to commit to reduction commitments for export subsidy use. Members agreed to reduce budgetary outlays by 36 percent and to reduce the volume of subsidised export products by 21 percent over the six year period, 1995-2000. Given that export subsidies are considered to be the most trade distorting support mechanism provided to agricultural producers and that export subsidy use in the dairy sector is very prominent, this was a major development for New Zealand.

14. The second main benefit to the dairy industry arising from the UR was the agreement by the EU to increase New Zealand's existing butter quota. However, although this eliminated the need to renegotiate the quota volume and tariff rate every year, there were trade-offs involved and New Zealand negotiators finally agreed to a guaranteed higher quota volume which more than offset the higher tariff rate imposed.

15. Tables 4-7 provide a comparison of the simulated effect of not having the UR against the actual upshot for the New Zealand dairy industry for the year 2000. In order to make the assessment of the UR benefits, the OECD's Aglink model is used. Within the model's constraints, export subsidy levels are increased back to the initial set levels for 1995 (prior to the UR there were no restrictions on the use of export subsidies). Additionally, New Zealand's butter quota into the EU is reduced to the 1994 level, along with the tariff rate, and import levels for other dairy products in the EU and US subject to tariff quotas are set back to 1994 levels, reflecting the lower level of market access that prevailed before the UR agreement. With a large increase in export subsidy levels and substantially lower dairy imports, the EU Commission would have come under considerable pressure to ease up on milk production quotas. The experience with Agenda 2000 where quotas have been increased suggests that in such circumstances the EU would allow a small increase in milk production, provided it was consistent with maintaining the internal milk price at existing levels. Consequently, in this analysis, we have allowed for an increase in EU milk production of approximately 2 percent.

Butter

16. The results in Table 4 indicate that without the UR, butter production in New Zealand would have been lower than what it actually was, resulting in a lower volume of butter exports. The production and exportation of New Zealand butter is strongly influenced by the world butter price. As a result of increased levels of subsidised butter exports from both the EU and US and reduced imports, reflecting less market access, the world export price falls significantly and this is reflected in the lower price for New Zealand butter exports.

Table 4: Estimated Butter Results

		Baseline Scenario	Non UR Agreement Scenario
NZ	Production	401,978	395,167
	Exports	330,037	322,142
	Export Price (NZ\$/t)	2,938	2,581
	Revenue	969,540,000	831,448,502
EU	Production	1,865,504	1,949,027
	Subsidised Exports	192,696	232,279
	Total Exports	192,696	232,279
	Imports	108,000	64,198
	Wholesale Price (Euro/t)	3,628	3,626
	Consumption	1,749,821	1,749,943
US	Production	539,190	553,926
	Consumption	559,988	534,139
	Exports	1,592	21,148
	Imports	22,397	1,361
	Wholesale Price	2,936	3,386
World	Exports	729,574	785,355
	Export Price (US\$/t)	1,506	1,319

17. Butter production in the US is estimated to be higher without the UR as a result of a much higher wholesale butter price in the US reflecting the increased ability of the US to use export subsidies to dispose of surplus production and lower imports. Table 4 indicates that the large increase in the US wholesale price is the catalyst for much lower US butter consumption. The combination of increased production, lower consumption and lower imports, sees the US push subsidised butter exports back up to the levels prevailing before the UR agreement.

18. With a stable internal EU wholesale price and an increase in the EU milk production quota, butter production is estimated to be higher in the EU without the UR. Subsidised butter exports from the EU are estimated to be 20 percent higher in the absence of the agreed disciplines on the use of export subsidies while imports are substantially lower. This increased use of export subsidies by both the EU and US, combined with cutbacks in market access, leads to a fall in the world butter price at the expense of New Zealand. It is estimated that the lower export price received by New Zealand and subsequent decline in production would result in export revenue falling by \$138 million in the absence of the UR outcome for the year 2000.

Cheese

19. The results presented in Table 5 indicate that without the trade liberalisation that was generated by the UR, New Zealand would be worse off in terms of monetary returns from cheese exports by an estimated \$139.7 million. Both the production and export volumes of cheese from New Zealand are estimated to be lower without the UR due to the negative influence of a world price 16 percent lower than the actual year 2000 value. The substantial decline in the world export price for cheese reflects the combined effect of the large increase in subsidised cheese exports from the EU and the major cutback in EU imports of cheese.

Table 5: Estimated Cheese Results

		Baseline Scenario	Non UR Agreement Scenario
NZ	Production	294,050	275,480
	Exports	257,035	237,821
	Export Price (NZ\$/t)	3,811	3,531
	Revenue	979,427,700	839,745,951
EU	Production	6,769,742	6,886,161
	Subsidised Exports	331,500	426,500
	Total Exports	442,725	510,298
	Imports	166,000	77,800
	Wholesale Price (Euro/t)	4,520	4,562
	Consumption	6,492,919	6,453,729
US	Production	3,752,564	3,726,306
	Consumption	3,845,537	3,815,633
	Exports	61,689	61,689
	Imports	154,675	151,000
	Wholesale Price	3,295	3,367
World	Exports	1,155,383	1,153,653
	Export Price (US\$/t)	1,807	1,522

20. Table 5 indicates that US cheese production is likely to decline. This is because US producers find it more profitable to increase production of other dairy products, namely butter and SMP (see Tables 4 and 6), and so divert milk for processing away from cheese production towards the production of butter and SMP, which are influenced by higher use of US export subsidies.

Skimmed Milk Powder (SMP)

21. Table 6 shows that revenue from SMP exports is negatively impacted by higher volumes of subsidised SMP exports originating from both the EU and US, and the reduction in import access. The rise in subsidised SMP exports increases the volume of SMP on the world market, while import demand falls in line with reduced market access; as a result the world price is reduced. This lower price flows back to New Zealand, resulting in lower SMP production and consequently lower export revenue. Table 6 indicates that without the UR agreement, New Zealand's export revenue would have been \$24 million lower than what it actually was for the year 2000.

Table 6: Estimated Skimmed Milk Powder Results

		Baseline Scenario	Non UR Agreement Scenario
NZ	Production	220,134	215,859
	Exports	212,126	207,808
	Export Price (NZ\$/t)	2,713	2,651
	Revenue	575,427,300	550,899,008
EU	Production	1,172,776	1,312,938
	Subsidised Exports	262,570	335,000
	Total Exports	262,570	335,000
	Imports	82,000	34,485
	Producer Price (Euro/t)	2,079	2,032
	Consumption	966,202	986,423
US	Production	530,250	539,264
	Consumption	388,721	365,356
	Exports	143,574	174,415
	Imports	2,042	499
	Wholesale Price	2,379	2,622
World	Exports	1,068,438	1,174,753
	Export Price (US\$/t)	1,445	1,383

22. Despite the lower internal EU price having a positive effect on SMP consumption, part of the increase in the EU milk production quota flows into SMP production, which increases the overall volume of excess SMP production, which is then exported using export subsidies. As with cheese exports, the EU exports the maximum allowable volume of subsidised exports which negatively impacts on the world SMP market and subsequently New Zealand (and other efficient SMP producers). Likewise, the increased volume of SMP production in the US reflects the increased level of subsidised exports that would occur in the absence of the UR agreement.

Whole Milk Powder (WMP)

23. The results presented in Table 7 shows that without the UR, it is estimated that WMP production in New Zealand would have been higher than what was actually the case in the year 2000. The higher level of production results in a higher volume of exports from New Zealand. However, higher subsidised export volumes from the EU negatively impacts on the world WMP price. The estimated lower world price impacts on the New Zealand export price and as a consequence, WMP revenue (for New Zealand) is estimated to be \$44.3 million lower without the UR despite the increased production and export volumes.

24. Increased EU production reflecting no WTO constraints on export subsidies results in the EU increasing the level of subsidised WMP exports entering the world market, with negative consequences for world prices. In contrast there is little change in the small US WMP market because subsidised WMP exports have not been a feature of US policy, unlike the situation with butter and SMP.

Table 7: Estimated Whole Milk Powder Results

		Baseline Scenario	Non UR Agreement Scenario
NZ	Production	460,241	470,050
	Exports	459,441	469,250
	Export Price (NZ\$/t)	3,127	2,967
	Revenue	1,436,543,800	1,392,264,750
EU	Production	957,930	990,413
	Subsidised Exports	441,382	474,160
	Total Exports	441,382	474,160
	Imports	5,000	5,000
	Producer Price (Euro/t)	2,504	2,513
	Consumption	521,547	521,253
US	Production	62,931	62,931
	Exports	12,701	12,701
	Imports	2,268	0
World	Exports	1,166,129	1,204,852
	Export Price (US\$/t)	1,540	1,382

Dairy Summary

25. Without the UR disciplines on export subsidy use, the EU and the US (though to a much lesser extent) would be able to increase their use of such trade-distorting mechanisms in order to dispose of surplus production. In this analysis, it is assumed that in the absence of the UR the EU would revert to its higher levels of subsidised dairy product exports which prevailed in 1995, prior to the reductions agreed under the UR agreement taking effect. Similarly, in the absence of the UR, the US is assumed to increase its subsidised exports of SMP and butter back up to 1995 levels. In practice the increases could be even larger if there were no WTO agreement.

26. Similarly, in the absence of the UR, market access opportunities into the EU and US dairy markets would not have improved, resulting in a substantial fall in imports of butter and cheese and, to a lesser extent, SMP.

27. With a large increase in export subsidy levels and substantial lower dairy imports, the EU Commission would come under considerable pressure to ease up on milk production quotas. The experience with Agenda 2000 where quotas have been increased suggests that in such circumstances, the EU would allow a small increase in milk production, provided it was consistent with maintaining the internal milk price at existing levels. Consequently, in this analysis, as stated earlier, we have allowed for an increase in EU milk production of approximately 2 percent.

28. Owing to the trade-distorting nature of export subsidies and reduced import access, world dairy prices are estimated to be significantly lower without the UR - which is reflected in lower export prices for New Zealand's dairy products.

29. The overall result is lower export prices received by New Zealand dairy exporters and a subsequent lowering of production of butter, cheese and SMP. Only WMP production is estimated to have been higher without the UR agreement by around 10,000 tonnes. However, despite the rise in WMP production, the reduction in the world WMP price results in lower overall export revenue from WMP exports. Indeed, without the UR, lower world prices for all four dairy products are estimated to result in a decline in the overall export revenue generated from dairy exports of \$346.6 million. This is a very conservative estimate and is subject to significant upside risk because, in the absence of the UR agreement, there would have been no restrictions on the volumes of subsidised exports or guarantees that New Zealand's butter import quota in the EU would continue.

Conclusion

30. The research presented here indicates that the New Zealand beef, sheepmeat and dairy industries are significantly better off as a result of the UR agreement. The estimated gains are summarised in Table 8.

Table 8: Estimated Gains to New Zealand Agriculture from UR Agreement in 2000

	<u>\$NZ million</u>
Beef	117.9
Sheepmeat	124.0
Dairy	346.6
Total	588.5

31. In total, the ongoing yearly gains identified above amount to at least \$NZ 588.5 million. It should be noted that these gains measure only the benefits of improved tariff quota access and lower export subsidies for the beef, sheepmeat and dairy industries. This result, therefore, is expected to underestimate the total gains to the agriculture sector from the conclusion of the UR as New Zealand has also benefited from lower tariff barriers, which represent a saving in tariff duties that would have otherwise had to be paid for access to foreign markets. Furthermore, the results in this paper only look at the beef, sheepmeat and dairy sectors and only focus on the main outcomes of the UR affecting these industries.

32. The results estimate that the beef industry has gained \$117.9 million in extra revenue from the US beef market due to the abolition of the voluntary restraint agreement and the negotiated increased in the country-specific tariff beef quota. The sheepmeat industry is estimated to have gained \$124 million of additional revenue from the EU market through an increase in New Zealand's country-specific tariff quota and the elimination of the quantitative restriction on the volume of chilled sheepmeat that could be exported.

33. The results for the dairy industry, presented in Tables 4-7, indicate that production of three of the four main commodities - butter, cheese and SMP - would have been lower in 2000 than was actually the case. And as a consequence, the volume of dairy exports originating from New Zealand is also estimated to be lower. Only the production and exportation of WMP is estimated to be higher without the UR. Combined with lower world prices, export revenue for cheese and butter is estimated to be significantly less without the UR. Although export volumes of WMP are estimated to be higher without the UR, a lower world WMP export price also results in lower export revenue for New Zealand. The overall value of dairy exports for the year 2000 without the UR is estimated be at least approximately \$346.6 million less than the value with the UR. Such a large and ongoing reduction in export revenue would have had serious implications for the domestic dairy industry and also for the wider New Zealand economy.

34. Further, the estimated gains above apply to the year 2000 only. As the Uruguay Round Agreement on Agriculture decisions are being implemented progressively, it would be reasonable to estimate that total gains to New Zealand agriculture since the conclusion of the Round have already exceeded \$1.5 billion, and that the value of the gains is increasing every year.