nzier
Independent, authoritative analysis

Insight

US and EU dairy subsidies risks

New dairy subsidies...

The US government has recently reintroduced export subsidies on a range of dairy products, including non-fat dry milk, butterfat and cheese. The US Department of Agriculture (USDA) will give US dairy producers cash 'bonuses' to allow them to sell at prices below the prevailing world price.

This follows moves in January 2009 by the EU to refund EU dairy producers the difference between the EU price and the world price for butter, milk fat, skim milk powder, cheese and other products containing whole milk powder.

The EU is the world's largest exporter of dairy products, accounting for around one-third of global exports by volume. New Zealand accounts for just over one-fifth of the market, and the US around one-seventh.

...are a worry for New Zealand farmers

In simple terms, dairy export subsidies give farmers incentives to over-produce dairy, as producers effectively receive an artificially inflated supply price that does not reflect their true costs of production. This oversupply puts downwards pressure on world dairy prices. Another way of looking at this issue is that existing implicit domestic price guarantees lead to stockpiles of dairy products being built up, and the export subsidies are a mechanism for reducing these stockpiles.

These subsidies have some significant damaging effects on more efficient, non-subsidised exporters. This group is likely to include developing countries as well as New Zealand and Australia. Non-subsidised exporters have to sell into the world market where the oversupply from the US and EU prices artificially dampen prices. This reduces incomes and distorts supply signals.

Given New Zealand's prominent role in global dairy markets, and its long-standing commitment to farming without subsidies, these dairy subsidy moves are therefore unsettling. New Zealand faces the prospect of selling its dairy products for lower world prices. This will cause Kiwi farmers' incomes to fall below where they would otherwise have been, through no fault of their own.

The impacts on New Zealand could be significant

To get a sense of the size of potential economic losses to New Zealand from the EU and US reintroducing dairy subsidies, we have conducted an indicative modelling exercise. We use the GTAP computable general equilibrium (CGE) model of the global economy to consider the effects of a 5% increase in EU and US dairy export subsidies.[1]

Table 1 below presents the GTAP modelling results. The results sketch the effects of a 5% increase in dairy subsidies in the EU and US.

Table 1 Indicative modelling results, selected countries

Country	Welfare US$	Value of exports % change	Dairy output % change
New Zealand	- US$74 million	-8.0	-5.0
Australia	- US$39 million	-9.5	-2.4
EU25	- US$547 million	14.1	1.2
US	US$23 million	18.4	0.2
Japan	US$55 million	-9.3	-0.5
China	US$13 million	-9.5	-1.1
Korea	US$19 million	-8.6	-0.7
Latin America	- US$3 million	-9.4	-0.7
Rest of World	US$512 million	-	-
World	- US$41 million	-	-

Notes: (1) Welfare is Equivalent Variation[2]
Source: NZIER

The results show that New Zealand's dairy output would fall by around 5% and the value of its dairy exports would fall by around 8%. New Zealand's total goods exports fall by a smaller amount as the resources previously used in dairy flow to other uses (such as services, other agricultural products and manufacturing). Its trade balance worsens by US$55 million.

The New Zealand economy as a whole would be some US$74 million (around NZ$122 million) worse off. This is mostly because of a fall in its terms of trade as dairy export prices fall. Land prices also fall by over 2% as output decreases. Australia, another unsubsidised dairy exporter, would also suffer significant welfare, output and export losses, although these losses are

[1] The size of this subsidy increase for modelling purpose is arbitrary. A more detailed examination of dairy product markets would be required to provide a more accurate assessment. The modelling results are preliminary and indicative only. They illustrate the potential effects on New Zealand and other dairy producers.

[2] The equivalent variation is a measure of the amount of income that would have to be given to or taken away from an economy before a change in policy for the economy to be as well off as it would be after the policy change. If the equivalent variation is positive the policy improves economic welfare.

proportionately smaller than for New Zealand, reflecting dairy's dominance in the New Zealand economy. The global economy is worse off by around US$41 million.[3]

While output and exports increase significantly in the US and EU as expected, the 5% increase in dairy subsidies does not lead to the EU economy being better off in welfare terms. It suffers a significant loss of allocative efficiency, as resources flow into dairy from other more efficient sectors. The welfare improvement for the US is very small, and is driven largely by changes in the investment-savings balance. This suggests that other parts of the US and EU economies "pay" for the increased dairy subsidies.

The risks to global trade could be larger

Reintroducing subsidies also sends potentially damaging signals to global trade when protectionist tendencies and inwards-looking policy settings appear to be on the rise. We have modelled only a small increase in subsidies. But the risk of ongoing retaliation between the US and EU (and potentially others) could lead to larger increases in subsidies, tariffs and other trade barriers over time, both in dairy and in other sectors.

Summary

These indicative results suggest the reintroduction of US and EU dairy subsidies is not good news for New Zealand, and not good news for the global economy as a whole. They also highlight some of the potential benefits foregone from the Doha round of WTO trade negotiations being put on ice. Such export subsidies are likely to be eliminated – or at least significantly reduced – if negotiations reach a successful conclusion.

John Ballingall
22 June 2009

[3] Some countries/regions benefit from these subsidies being reintroduced. These countries, such as Japan and Korea, are large dairy importers who benefit from lower world prices as their terms of trade improve.