

# Agribiz

September 2009

## Mind your P's and Q's

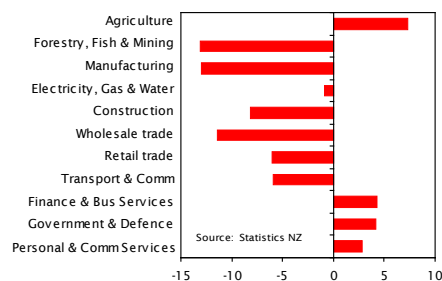
Farmers and orchardists know that there are many factors in running a successful business. For example, it is no good producing heaps of high quality apples, kiwifruit, lambs, grain or milk if what you get paid for your produce does not cover your costs – and give a reasonable rate of return on your capital and effort. Sure quantity and quality (Q's) are important, but so is price (P). Both the price of product sold and price of inputs used. Yes, the old adage 'profit not production' applies.

Economists, and the media, have a penchant for using real GDP as the principal measure of economic performance. On this measure, agricultural was in the dog box in the year to March 2008, with production dropping 4.3% (the second worst sectoral outcome behind electricity). As anyone involved in agriculture is acutely aware, this is arrant nonsense! Obviously, drought pummelled on farm production – particularly on the East Coast and Waikato. For those farmers directly affected, the bottom line outcome was also horrendous. But on average, across the entire agriculture sector, profitability was strong thanks to gradually improving sheep and beef prices and a stellar dairy payout of \$7.90/kg of

milk-solids. It was a good year, not a bad one.

In the year to March 2009, agriculture suddenly became the poster girl of sectoral economic performance. Real value added in agriculture lifted a whopping 7.3%, when most other sectors were going backwards (see Figure 1). But again, the initial post drought recovery in production bore precious little resemblance to changes in actual performance: the bottom line!

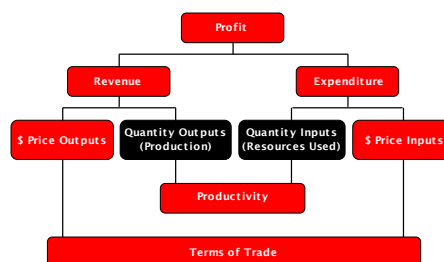
Figure 1: Real GDP growth by sector from Q1 2008 to Q1 2009



As nicely illustrated in the flow-chart of Figure 2, you have to mind both your P's (prices) and Q's (quantity and quality) for bottom line performance. In the next two sections, we'll take a look at the prospects for both. Obviously, price and

quantity are interrelated. The amount of a product available affects its price, just as the price affects the amount that producers are willing to supply. But as a rule of thumb, New Zealand is a price taker for its agricultural products, with variations in the amount of New Zealand product available having limited impact on international prices. With this in mind, we'll have a look at price prospects first.

Figure 2: Components of profit



Reproduced from DairyNZ Economic Survey 2007-08

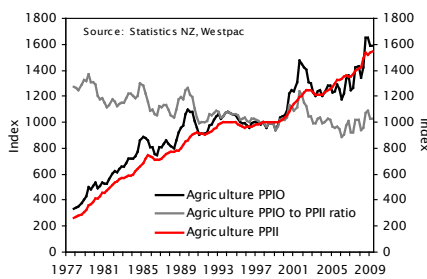
### Price

Before looking at prices for specific sectors, we take a wide-angle lens and look at agriculture as a whole. Figure 3 shows industry weighted output and input prices over the past 30 years. Outside the upward trend in both output and input price, four episodes stand out: the high

inflation of the 1970s and 1980s; flat-to-easing prices through the mid-1990s with general disinflation and a rising NZ dollar; the fast price appreciation from 1998 to 2000 as a result of a sharp drop in the NZ dollar; and the commodity boom from 2004 to 2008.

More important than selling prices or input prices themselves is the ratio between them – the ‘terms of trade’ from Figure 3. The downward trend in this ratio has long been a concern, with it having to be offset by strong on-farm productivity gains to generate profits. Encouragingly, the downtrend in this ratio appears to have been arrested in recent years with even some mild improvement. However, as always, there is much variation across sectors.

**Figure 3: Agriculture input and output prices**



### Dairy

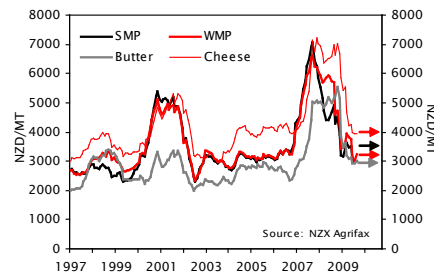
We retain our \$4.70 payout forecast for the 2009/10 season. This includes a value-added component of 50c, an effective exchange rate of around \$US0.66, and a flat trend in international product prices in 2009 with mild improvement thereafter.

International milk powder prices have shown a mild upward push since their trough in late 2008. Butter and cheese prices have also been on a mild uptrend after reaching their bottom in March this year. The trend price improvement is partly due to the recovery in global economic sentiment. This has encouraged restocking and some genuine increase in demand. Meanwhile, the outlook for milk supply remains relatively weak with little

growth expected in New Zealand and Australia and an outright decline in the US over the coming 18 months.

Outside the upward trend, there have been plenty of humps and bumps in prices. Some have been very large, like the 50% increase in wholemilk powder prices over Fonterra’s August and September auctions. As ever, where prices trend from here is highly dependent on the evolution of the world economy. Outside of almost certain volatility, we expect the trend in dairy prices to plateau through year end before embarking on a gradual improvement through 2010 and 2011 as supply tightens relative to rising demand.

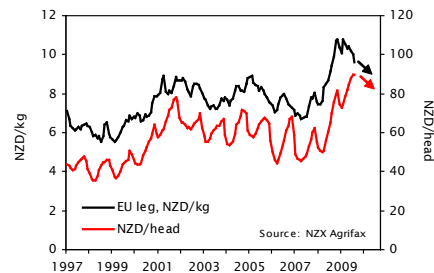
**Figure 4: Dairy prices**



### Lamb

World prices have eased back from their peak a few months ago, but remain at elevated levels. Average farmgate prices through the 2008/09 season look likely to come in around \$5.50/kg, a good wedge above the disappointing previous five year average of \$3.90. We have been positive on the outlook for lamb prices for some time and remain so. We think international lamb prices are going to remain firm over the 2009/10 season,

**Figure 5: Lamb prices**



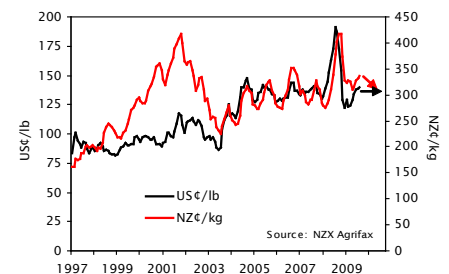
with scarce supply – both at home (see Quantity section below) and abroad – a major reason. However, a stronger NZ dollar is likely to see farmgate returns pull back around 10% to \$/kg.

### Beef

The global recession has dented international beef prices over the past year. Demand in the key markets in Asia and the US has been weak. A 3.5% contraction in the Russian economy has choked off a previously very strong source of new demand. A high dairy cow cull at home and in the US will put some downward pressure on prices over coming months. But, beef cattle supply is tightening in the US and we see international beef prices around the same level as today in a year’s time. There may even be some upward pressure on international prices coming as Argentina’s drought has raised the prospect of the biggest beef consuming nation in the world importing beef for the first time.

Average farmgate beef prices through the 2008/09 season will be around the \$3.30/kg mark. We anticipate a 12% decline over the coming season to around \$2.90/kg, as a higher NZD takes its toll.

**Figure 6: Beef prices**



### Quantity

Production has varied greatly across the agricultural sector over the past year. The early 2008 drought continues to shape changes in production in the pastoral sectors. Lamb numbers were back 12% (3.8m), as the drought lowered the lambing percentage and breeding stock,

which had already been depleted by the dairy conversions. For similar reasons, beef cattle numbers were down 1.7%, while the breeding cow herd is at its smallest since the early 1960s. Of course, fewer sheep has reduced wool supply.

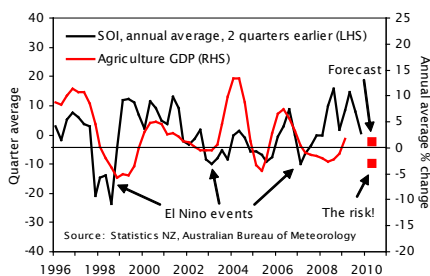
Conversions to dairy and better grass growth lifted milksolids per cow and drove a close to 10% gain in milk production over the previous drought-affected season.

We expect better growing conditions and product prices to result in some restocking of depleted sheep and beef flocks/herds. This will mean that, while on farm production will be up, meat processing will be largely stagnant. Some offset will come from an increased cull within the dairy herd.

Dairy farmers are dramatically reducing their working expenditure. With income expected to be down \$850m in the coming season (assuming a \$4.70 payout), dairy farmers are lowering their working expenditure by around \$650m. Lower supplementary feed will limit this season's production, while lower fertiliser application will have most impact in the subsequent season.

The weather has the most significant impact on production in the short term. The Southern Oscillation Index has been volatile of late, but climate models show an elevated likelihood of El Niño conditions prevailing toward the end of this year. Summer El Niño's tend to bring stronger or more frequent winds from the west, typically leading to a dry East

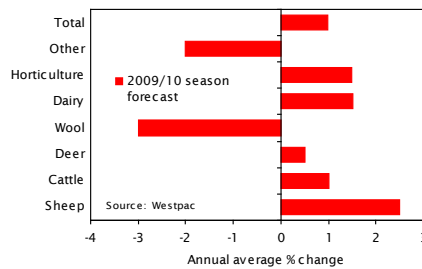
**Figure 7: Agricultural production and the weather**



Coast and more rain in the West. El Niño conditions typically reduce the nation's agricultural output (see Figure 7).

Putting all the factors together, we expect only a modest 1% lift in agricultural production in the coming season (see Figure 8). Re-stocking across the sheep, beef and deer sectors will provide some growth. A 2.5% expected rise in sheep production derives from early signs of a solid lift in lambing percentage. Despite the drop in breeding ewe numbers, we share Meat and Wool NZ's view of just fewer than 28 million lambs in the 2009/10 season. This would be about a 2% increase on last season; good to see but recall that last year's lamb numbers were at their lowest since the 1950s. Reduced sheep numbers are expected to see the wool clip shrink again.

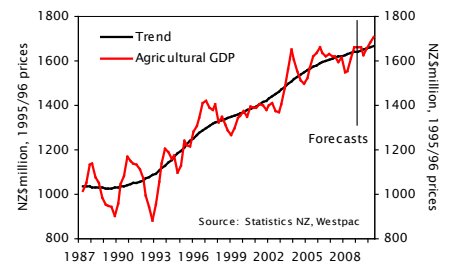
**Figure 8: Production volumes**



A 1.5% increase in milk production includes a small 0.5% lift in milksolids per cow over the coming two years – only a fifth of the average growth over the past 10 years. There are upside risks to this from cow culling, as lower performers are weeded out raising the average of the remaining herd by more than we expect. The weather poses downside risk. The 'other' component includes agricultural services that are likely to see sales volumes drop as on-farm discretionary expenditure is cut.

Trend agricultural production has grown by 60% over the past 20 years (see Figure 9). This equates to compound growth of 2.4% p.a. Growth in the coming year is likely to be shy of trend, but will still push production to a record level.

**Figure 9: Agricultural real GDP**

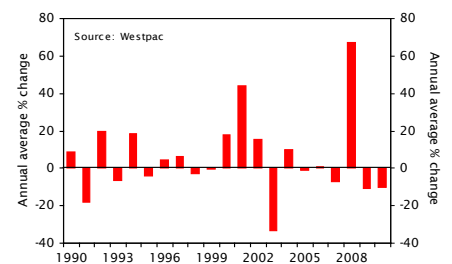


## Profit

So how does it all stack up? It makes for another tough year on the bottom line. We estimate sector wide operating surplus will fall by around 10%, largely driven by lower selling prices. Of course, around this average there is likely to be wide variance both across industries and within industries. Despite price declines for some inputs like fertiliser and fuel, the overall ongoing cost pressure will also place downward pressure on agriculture's profitability over the coming year. A cut back in working expenses will provide some offset, but likely dampen profitability in the following year. A 10% drop in profit would follow a similar-sized decline in the previous year.

Medium term we remain positive on the outlook for agricultural profitability. We are optimistic that the recent trend improvement in the terms of trade for the sector as a whole will continue over coming years, despite a likely deterioration over the coming year. Further on-farm productivity growth will also enhance profit.

**Figure 10: Agriculture operating surplus growth**



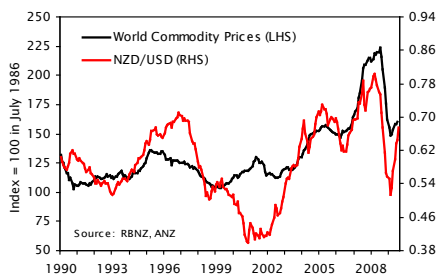
# Market spotlight

## New Zealand dollar

The global economic recovery has thrown up some fresh puzzles for financial markets. The recovery appears to be widespread across the major economies, but since exchange rates are relative, which currencies should benefit over others?

The clearest signs of improvement have come from the US, which was the epicentre of the financial crisis last year. However, traders seem to have taken the view that what's good for the US is even better for the rest of the world, and have used almost every piece of good news from the US as an opportunity to sell US dollars and buy assets that are likely to benefit from a global recovery – and commodity-based currencies such as the NZ and Australian dollars are near the top of the list. As a result, the NZD has seen some of the most spectacular gains against the USD, from below 0.50 in early March to recent highs around 0.69.

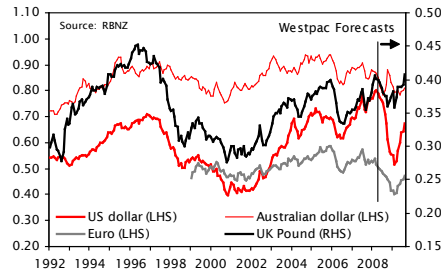
Figure 11: NZD versus world commodity prices



This trend isn't in itself unusual, but what's remarkable is how long it has

lasted – the US data has generally been beating forecasts, and traders have been selling US dollars in response, for several months running. The result is that traders now appear to be very short US dollars, and very full on currencies like the New Zealand dollar. We could see these positions reversed at some stage – say, if the tone of the economic data changes, or if a rise in US interest rates makes the US dollar a more appealing investment, or if traders simply decide to book some profits – and the reversal could be quite dramatic. Then again, it could also happen in an orderly manner, or it might not happen at all. The issue is that with sentiment and positioning playing such a dominant role, appealing to 'fundamentals' won't get you very far when it comes to picking the next move in the currency.

Figure 12: NZ exchange rate



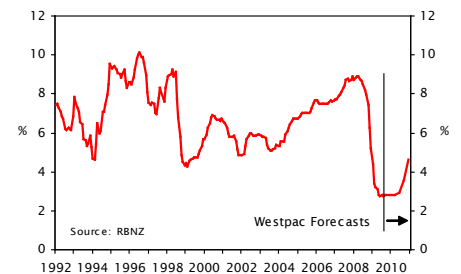
## Interest rates

Despite the signs of recovery in the New Zealand economy, the RBNZ has maintained their attitude that further cuts to the OCR are possible, and that they "expect to keep the OCR at or below the current level through until the latter

part of 2010". Their concern seems to be that the strength of the NZ dollar could stifle the emerging recovery. That's not to say that the RBNZ believe they can do anything directly about the currency; rather, if the stronger NZD holds back the export sector, they will try to offset this by boosting the local economy via low borrowing rates.

Even with short-term rates remaining low, the risks to longer-term rates are generally pointing up. The steep rise in rates since March was a result of the 'fear factor' being taken out the market, a process that by and large appears to be complete; the next leg higher will be for more fundamental reasons. Long-term rates are likely to rise once the next RBNZ tightening cycle gets under way, though the longer the term, the less responsive they tend to be. The RBNZ has also tightened up the rules around banks' sources of funding, which will contribute to higher long-term lending rates – even more so when demand for loans starts to pick up again. And globally, long-term rates could be pressured higher as governments compete for funds to pay for their sizeable stimulus packages.

Figure 13: NZ 90 day interest rate



Prepared by NZ Economics, Westpac, PO Box 691, Wellington. For further information contact Doug Steel, ph: (04) 470 8251, email [doug\\_steel@westpac.co.nz](mailto:doug_steel@westpac.co.nz)

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