PEAK MILK?

Why dairying's big-dollar days are over.

In the space of 18 months, Fonterra's payout forecast plummeted from record highs to a 15-year low, gouging around $2.5 billion out of the New Zealand economy. Is this just a cyclical commodity blip or something more ominous? Aaron Smale investigates.

AARON SMALE IS A *NORTH & SOUTH* CONTRIBUTING WRITER.

Fonterra's gleaming new head office on Halsey St in downtown Auckland.

KEN DOWNIE

BRENDON O'HAGAN/BLOOMBERG VIA GETTY IMAGES

Fonterra chief executive Theo Spierings announcing a cut to the co-operative's dividend forecast at a news conference in March last year. By September, 750 jobs would be slashed from Fonterra's global workforce, about half of those in Auckland and Hamilton. Spierings requested his base salary be frozen, but his total earnings for the year still topped $4.93 million.

Global Dairy Network's John Shaskey.

FOR FONTERRA TO DIVERSIFY ITS PRODUCT RANGE AWAY FROM COMMODITIES REQUIRED MORE CAPITAL. TO RAISE MORE CAPITAL RAISED QUESTIONS OF OWNERSHIP. AND FOR FARMERS, OUTSIDE OWNERSHIP WAS NOT AN OPTION.

In the hours and days after "black Friday" – August 7, 2015 – when Fonterra announced its dismal payout forecast of $3.85 for the 2016 season, many apologists seized on the word "resilient" to describe farmers. In such bad times, with forces arrayed against them, the resilient farmer would pull through.

It's a comforting narrative, freighted with all sorts of national myths – the stoic, laconic farmer, taking on both nature and the global market… the black-singleted, economic backbone of the country. New Zealand is now predominantly urban, but even city dwellers were reassured by the thought that resilient farmers were propping up our balance of payments, just like they used to prop up the All Blacks front row.

After all, such things happen. International markets and volatile commodity prices are worse than the weather. We can't control either. Even Remuera's resident farming expert, Mike Hosking of *Seven Sharp* and Newstalk ZB, pitched in. "It is the simple truth that we have been here before and we will be here again. That's commodities for you, good days and not-so-good days. Prices driven, not by fault, but by things beyond your control." Hosking followed this with a cherry-picking of soundbites from experts to underline his authority and proceeded to dismiss anyone who disagreed as losers.

Fonterra's chairman, John Wilson, isn't so glib. But he's happy to point to fluctuating commodities while still claiming Fonterra is on the right track. "The greatest frustration I have is the huge volatility we've had in prices. Of course, it's not just been in dairy; we've seen it in oil, along with other commodities. There's been quite significant underlying performance improvements within Fonterra over the last two or three years. And yet the volatility has masked that."

But the argument that it is all beyond farmers' control is somewhat spurious. New Zealand accounts for around 35 per cent of the global export market in dairy, which has led to it being described as the Saudi Arabia of milk. It can and does have a massive role in shaping dairy prices globally.

Fonterra is owned by farmers and its board is stacked with farmers who make the key decisions. Its formation was based on the premise that it gave farmers control of their destiny. The crisis in the dairy industry, and its impact on the New Zealand economy, is one at least partly of farmers' own making. And the flaws in the industry are deeper than many will acknowledge, which is why they persist.

To understand Fonterra's current state, it's necessary to rewind a few years to a very specific date that was the culmination of years of debate. On November 15, 2007, Fonterra called a special meeting with its farmer shareholders, beaming a video-linked presentation to seven locations throughout the country. Its purpose was to reveal proposals about the co-operative's capital structure. But the proposals met ferocious opposition. They exposed the deep fissures in Fonterra's identity and an ongoing reluctance to address fundamental questions about the company's direction.

To understand Fonterra's internal workings, it's also important to understand why farmers are so attached to the co-operative model.

Milk is a highly perishable product and has to be transported and processed within 12 to 24 hours of being taken from a cow and put in a vat. To leave that to the whim of a corporately owned entity would run the risk of the company simply saying it doesn't want to buy that product today, leaving the farmer in a disastrous situation. A co-operative is obliged to take all the milk its suppliers produce, whether there's a customer for it on the global market or not.

For more than 100 years, New Zealand's dairy landscape was dotted with such co-operatives. They consolidated over time until the two largest – along with the government-owned Dairy Board – merged to become Fonterra in 2001. Fonterra's predecessors had built up a long-standing and well-recognised ability to process milk, turning it into milk powder and a limited range of other products. Although they had fostered customers all over the world, their export business was heavily reliant on Britain. When the mothership joined the European Economic Community in 1973, New Zealand farming exporters were cast adrift in the global market. (Forty-plus years later, Fonterra was operating in more than 100 countries.)

By 2007, the Fonterra board – then headed by Henry van der Heyden – had initiated numerous discussions about ways to increase the value of farmers' milk. The capital-raising model the company existed under was much the same as it had always been – for every unit of milk production, farmers had to buy a share that funded the processing of that milk. This meant Fonterra's balance sheet could fluctuate wildly as farmers bought or sold shares, depending on their farm and business conditions in any given year.

It also meant that farmers, as owners-investors, were more concerned about the capital needs of their farms than the capital needs of the company. For Fonterra to diversify its product range away from commodities required more capital. To raise more capital raised questions of ownership. And for farmers, outside ownership was not an option.

However, many economists and commentators believe the status quo in how Fonterra performs is not an option, either. Lincoln University's Dr Keith Woodford is a long-time commentator on the dairy industry. He believes that Fonterra is very good at what it does – producing commodities – but the company needs to be more than that for the good of the dairy industry and for the good of the country.

"It's very efficient as a producer of commodities," he says. "But Fonterra's culture is a commodities and ingredients culture, and it struggles mightily when it comes to brands and innovation. As a farmer co-op, it can serve the needs of many of its farmers with this commodities focus, based on seasonal production. But given the national importance of dairying to our economy, and the resources allocated to it, New Zealand needs something more than commodities and ingredients."

By 2007, van der Heyden had been relentlessly mooting various options to break out of this impasse. The nub of the proposal was to list Fonterra on the stock exchange with a limited percentage offered to the public, while the farmer shareholders retained the majority of shares. The proposal was met with a fierce backlash from farmers. It was so unpopular it didn't even get to a vote.

It wasn't only farmers who were unimpressed. John Shaskey was the ingredients manager at Fonterra at the time, a sector of the business he'd worked in for 30 years stretching back to Dairy Board days. He'd worked around the world and knew the co-operative's customers well. After he left Fonterra, he set up Global Dairy Network, a dairy trading company that deals with clients in New Zealand and abroad.

"I was asked, because of my role in Fonterra's management team, to stand up and advocate at farmers' meetings for that proposed structure. I said I wouldn't do it. I said if part of the management team can't do that, then I'll just leave. And I did."

What the proposal and the reaction highlighted was a muddle about Fonterra's very identity. Shaskey says a big part of the problem is the conflicting objectives of the commodity and brands parts of the business.

A high-value branded product will contain more than one ingredient and each is a cost. Any company developing

AARON SMALE

John Luxton, who chairs DairyNZ, believes Fonterra should have retained a greater proportion of its payout to reinvest in added-value product lines – a model that's proved successful for small Waikato co-operative Tatua.

these products tries to keep those costs to a minimum in order to increase its overall margins. Those trading in the commodities making up such products – as Fonterra does – try to get the highest price they can for those commodities. The margins are generally thin and rely on volume to make a profit. Fonterra claims to be trying to do both with a long-term strategy to move increasingly to higher-value products. So far the rhetoric has not matched reality.

John Luxton knows the dairy industry inside out. A former agriculture minister under National, he's a former chairman of Tatua, the small but highly successful Waikato co-operative that regularly trumps Fonterra's payout by positioning itself in niche markets. His family has been involved in Tatua since its founding in 1914. He was a key figure in the start-up of Open Country, a listed dairy company with branches throughout the country; he's currently the chairman of DairyNZ.

He's upbeat generally about Fonterra, but with a few caveats. "Fonterra is still a good company. I've got a lot of faith in it; I think they're heading in the right direction. If there was a criticism, it's perhaps that they haven't put enough into some of the value-add areas or even into buying more companies."

Comparisons are often made between how Tatua has managed to create a number of products – aerosol whipped cream, for one – in the value-added category much more successfully than

FONTERRA FACES THE CHALLENGE OF COMPETING WITH GLOBAL CONGLOMERATES THAT HAVE A NUMBER OF DIFFERENT FOOD PRODUCTS IN THEIR PORTFOLIO.

Fonterra. But Luxton says the comparisons aren't altogether fair, with the main difference being scale – Fonterra has to deal with a growing tsunami of milk, while Tatua's supply is tiny and stable by comparison. "Tatua always had a transport advantage over other companies and it knew it couldn't compete on the economies of scale. So it had to look for niches in which to operate."

But while those differences can disqualify direct comparisons, there's one area that is comparable and it's where Tatua outstrips its big brother by a country mile – reinvestment.

The bulk of Fonterra's payout is made up of the milk price, which could be called the raw commodity component. The other part is the dividend and is the part of the payout derived from the value-added side of the business for brands such as Anchor and others.

Fonterra's board, like Tatua's, also has discretion to retain a portion of the payout to reinvest. However, on a per-kilo basis, Fonterra has retained a far smaller percentage than Tatua. Luxton says Tatua is reinvesting as much as four to five times more than Fonterra per kilo. "Tatua continues to invest a huge amount more into its product lines. If there's a criticism of Fonterra, it's that they should have retained more to spend more on adding the value."

Fonterra faces the challenge of competing with global conglomerates that have a number of different food products in their portfolio. Products with a high dairy content are a small segment in the food market.

There are several ways to do this on the sort of scale Fonterra needs to make it worthwhile. The two expensive options are to build your own brands or buy out others that come onto the market, which requires the kind of money Fonterra simply doesn't have. A third option is to enter into joint ventures with companies that have abilities Fonterra doesn't, such as manufacturing, supply chains and marketing.

Fonterra's made some highly ambitious but also naive attempts to buy out existing companies. In 2005, it made a bid for National Foods, Australia's largest publicly traded dairy company. It was outbid by Philippines-based San Miguel, which put in an offer of $A1.9 billion.

Shaskey says those opportunities have now gone, as the prices for such companies are even higher. "They [Fonterra] missed the bus when they had the opportunity to buy medium-sized branded consumer products and dairy companies in Asia, South America and the Middle East in the past 15 to 20 years. They got really close, but they've all gone. The last company to change hands was one Nestlé paid $12 billion for. The prices for these branded consumer products [companies] have got to the point where Fonterra hasn't got the balance sheet to do it."

Developing high-value products and brands from scratch isn't an easy option, either. What is high-value today can be a commodity tomorrow. Tatua led the way in producing lactoferrin – a multifunctional protein that can be extracted from milk and is important in the transfer of iron in the body. But when Fonterra began to move into this market, it caused prices to soften, affecting Tatua's profits.

Luxton says this was somewhat inevitable – whenever Fonterra moves into a product line, it's going to turn it out on a scale that dramatically increases the supply. Others then get on the bandwagon. "You can keep a niche product going for a certain period but you've got to keep innovating, otherwise it becomes a commodity."

Trade barriers are also a significant challenge for dairy and have so effectively killed certain markets for New Zealand that in some cases Fonterra hasn't even bothered to pursue them.

"Getting into those markets is often very difficult, particularly in something as sensitive as dairying. We're essentially operating in one of the most protected sectors in the developed world. It's very heavily protected. Look at the [Trans-Pacific Partnership] negotiations we've just had. What did the US want to protect? Sugar and milk."

One advantage New Zealand dairying has been able to claim, particularly since the mid-1980s, is its efficiency. This was linked to its open market and absence of subsidies, alongside its efficient, low-cost farming systems based on grass.

But around the same time farmers tossed out the capital-raising proposal by the board, they also decided to shift away from this low-cost farming structure – a shift that is one of the reasons this season's payout announcement has been so calamitous.

This change in farming practice was a direct result of the jump in payout in the 2007-08 season to $7.90kg/MS (milk solids). In the previous few years, it averaged between $4 and $5. But the surge was largely due to shifts in the global dairy market that were one-off in nature.

Andrew Watters of the investment company MyFarm was in the thick of it when these changes occurred. MyFarm buys farms on behalf of investors, and it currently manages $550 million worth of farm assets, including 43 dairy farms throughout the country. Watters and business partner Grant Rowan, both previous winners of the Sharemilker of the Year title, run the company out of offices in Feilding.

In the 1990s, Watters was the milk production manager at Tui Milk Products and then Kiwi Dairies, co-ops in the lower North Island that through a series of mergers were eventually swallowed up by the formation of Fonterra. "This whole area of growth is in some ways quite personal, because my job was to get 10 per cent more milk at that time," he says. "It was all about growth. The industry had been relatively stagnant, particularly in the lower North Island."

MyFarm's Andrew Watters: "People were all coming in but they weren't paying very much to enter and as soon as you converted your farm it was worth more, so there was a flurry of conversions."

"WE'RE ESSENTIALLY OPERATING IN ONE OF THE MOST PROTECTED SECTORS IN THE DEVELOPED WORLD."

He went sharemilking in the early 2000s and then bought into what is now MyFarm. There was a surge in milk supply, which caused growing pains the industry is still not over. "People were all coming in but they weren't paying very much to enter and as soon as you converted your farm it was worth more, so there was a flurry of conversions. That led to the capital structure debate – these people coming in need to pay a fair price; what's a fair price?"

The growth through the late 1990s and early 2000s brought those questions into sharp focus because under Fonterra's founding legislation, it is obliged to take the milk of any supplier who wants to join.

The co-op's strategy to cope with the extra milk got caught on the hop. One reason for the dramatic change in dairy prices was that until 2007, there were stockpiles around the world that depressed prices – a result of market distortions caused by subsidies and quotas in the United States and Europe. As these were phased out, it took years for the market to adjust.

"If you go back before the early 2000s, prices were relatively flat and static," says Watters. "Prices were $4, plus or minus. The market didn't always work, but what happened was there was a build-up of stocks. Once supply and demand sorted it out, there was an overhang from those stocks because they still had to be sold."

When that inventory was cleared, suddenly the warehouses were empty. Demand surged; so did dairy prices, and Fonterra's payout in 2007 reflected the rise. This had the immediate effect of stifling debate on where the company should be going. Why worry about a capital-raising strategy for high-value brands when you are, literally, milking it? It also quelled farmer disenchantment with the board and management.

In direct correlation to the surge in payout was a surge in farmer spending and on-farm expenses. Most had been

Hayley Moynihan, Rabobank New Zealand's general manager country banking, says Kiwi farmers are similar to urbanites in their spending habits.

bobbling along at their usual level for years – the cost of production for each kilo of milk solids had averaged around $3.50. But two of the biggest on-farm expenses – feed and banking – rocketed in 2007 to rates that haven't pulled back significantly since. Production costs from 2008 onwards jumped and are estimated to be $5.28 per kg of milk solids for the 2015-16 season.

Increasing feed costs – irrigation, supplementary feeds and all the infrastructure and labour costs that go with them – were justified on the basis that they not only increased production but created a more stable, reliable milk flow.

Watters says this spending was initially beneficial to farming overall but has become entrenched to the point where younger farmers don't know how to farm any differently.

"In the old days, there were few feed inputs. Production varied more, likewise things like cow condition and animal welfare. We've moved on to a system where we're trying to fully feed our cows and get their highest production potential. There's probably a generation of younger farmers that have grown up knowing only [a system that includes] supplements."

The traditional reliance on grass hasn't disappeared, but it's now only part of the picture. Many areas have weather patterns that can crimp milk production, particularly at the start and end of the season. Southland's winter can stall grass growth; Canterbury's nor-wester can burn off pasture in summer if rainfall is not consistent.

Much of the spending was to mitigate these factors with supplementary feed and irrigation. Adding to this, land that had previously been used for winter grazing was bought up for dairy conversions, reducing what could be used to grow extra feed. This meant farmers began sourcing alternative feeds from overseas, including palm kernel extract. This trend has not only affected farm costs but also the composition of milk and the quality of the resulting products.

Bank debt for dairy escalated at unprecedented rates, with the major jump happening in the 2007 season. Between 2003 and 2009, dairy sector debt jumped from just over $11.3 billion to $29 billion. The total now stands at around $37.9 billion.

According to the Reserve Bank, an estimated 49 per cent of the dairy sector was operating below the break-even point in the 2014-15 season and 80 per cent of farmers will have negative cashflow in the 2015-16 season – which is likely to mean increased debt.

Hayley Moynihan is currently Rabobank New Zealand's general manager country banking and previously held the roles of director of dairy research for New Zealand and Asia, and led Rabobank's London food and agribusiness section. She says New Zealand farmers are similar to urbanites in their spending habits. "It's a bit like wage and salary earners; regardless of how much you earn you tend to spend to your earnings. Dairy farmers are no different in that regard. You spend to the milk price.

"What happened, particularly in the use of feed intensifying, [is] the other costs lifted as well. During the downturns, the flexibility of the farming systems and the ability to then take those costs out of the system was less than it had been historically. That certainly came to light in the downturn of 2009 [after the payout dropped] and the financial crisis.

"But that downturn was relatively short-lived. Milk prices recovered relatively quickly after the financial crisis, so the lessons of 2009 weren't learnt. Because we then had another spike in milk prices and the costs moved even higher through 2013 and 2014."

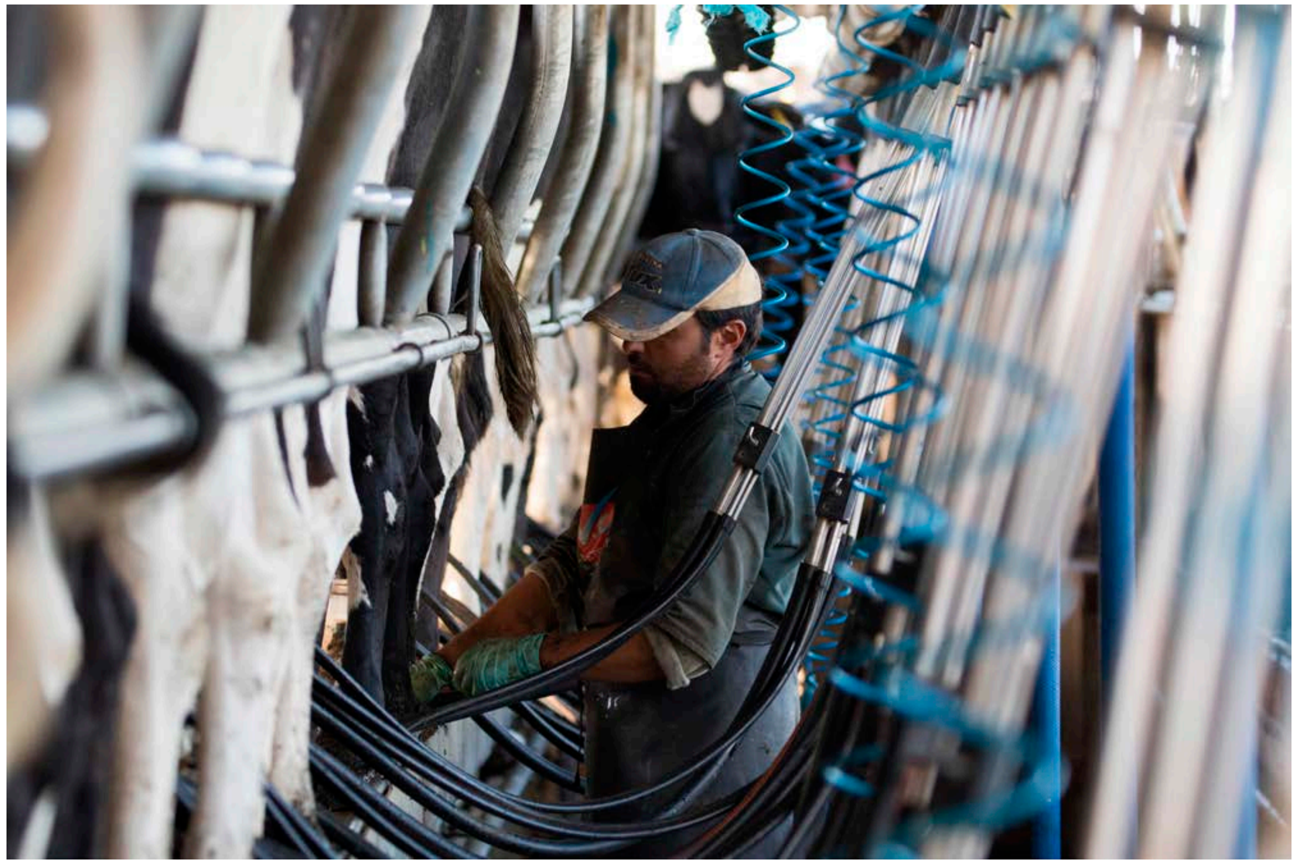
This debt is concentrated among a small proportion of highly leveraged farms; up to half of the dairy debt is held by only 10 per cent of dairy farmers. This increased lending has had the spinoff effect of farms becoming larger, with corporate and overseas ownership increasing, while young sharemilkers struggle to get on the ownership ladder.

The drop in payout has now fallen below this higher break-even point and many farmers will have to take on more debt just to stay afloat.

A good deal of the lending over this period was based on expected capital gains, rather than cash returns. Dairy farmers are more like Auckland property owners than they'd like to admit. Some of the lending was also predatory.

The Commerce Commission investigated ANZ, ASB and Westpac banks for their marketing, promotion and sale of interest rate swaps to rural customers between 2005 and 2012. After finding grounds for prosecution, in October last year the commission announced settlements reached with the banks, including nearly $20 million paid to eligible customers, with an additional $2.5 million paid to 14 regional rural support trusts and the Dairy Women's Network.

Interest rate swaps are a financial derivative product that allows a borrower to manage the interest rate exposure on their borrowing. Although usually provided to large corporate and institutional customers, from 2005 they were offered by some banks to rural customers. For some of those customers, the effects were devastating.



Up to half of the dairy debt is held by only 10 per cent of dairy farmers. This increased lending has had the spinoff effect of farms becoming larger, with corporate and overseas ownership increasing, while young sharemilkers struggle to get on the ownership ladder.

Another major factor was China's free-trade agreement with New Zealand in 2008. China's extraordinary economic growth over the past 25 years was also reflected in a fast-growing appetite for commodities like milk, as Chinese consumers developed a taste for Western diets.

With the free-trade agreement embedded, it appeared New Zealand farmers' time had come. Since the late 80s, it has been a matter of pride that the hoary old Kiwi cocky could outstrip his subsidised competitors in other countries. And, at last, here they were on the cusp of free-market nirvana. Milk and money were flowing in abundance.

Then the happily-ever-after scenario turned sour. The global financial crisis tossed the world economy into turmoil, which had all sorts of unforeseen consequences for dairy. Fonterra's payout took a dive in the 2008-09 season, but this could be at least partly explained by the impact of consumer uncertainty. Then the co-op embarked on a series of blunders that weren't so much a case of shooting themselves in the foot as blowing off both legs with a bazooka.

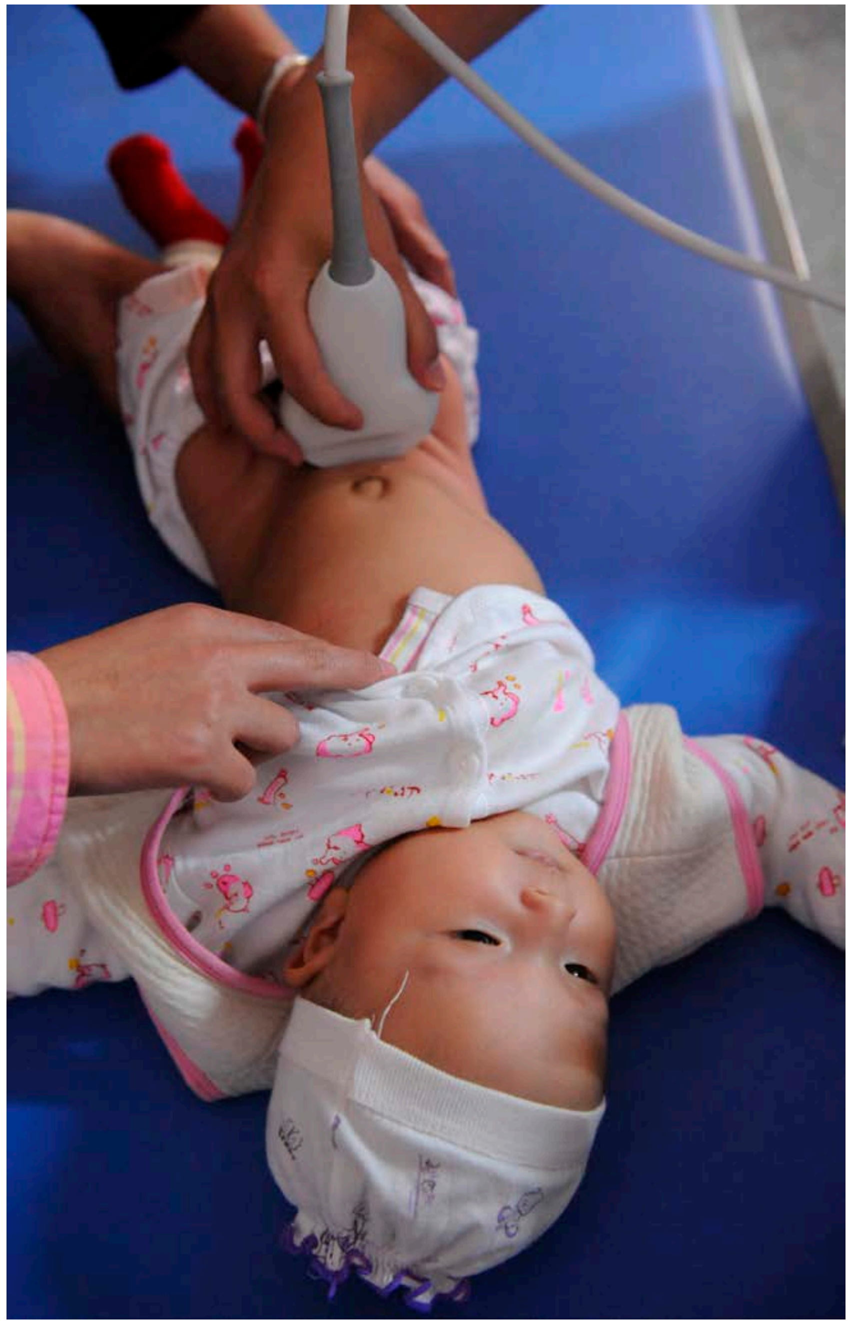
Few New Zealanders had heard of the substance melamine before the infant formula debacle of 2008. And yet it was this substance appearing in milk sold by Sanlu, a company in which Fonterra had a major shareholding, that threatened its global reputation. The chemical was smuggled into Chinese milk by traders who were trying to fake protein measurements and dupe local buyers, including Sanlu.

As Fonterra's CEO at the time, Andrew Ferrier, acknowledged, you couldn't get a worse scenario for a food company – the supply chain poisoned with a chemical that led to the deaths of at least six babies and made another 300,000 sick. Aside from the devastation caused for Chinese families, it also exposed the convoluted supply lines Fonterra had got itself into.

Fonterra's strategy was to buy into or team up with companies in overseas markets to gain access to supplies of fresh milk in those markets and the infrastructure that went with them. Some of these partnerships were built around manufacturing and other processes that were beyond the ability of Fonterra to compete in. The rationale was that by building such relationships in different markets, it gained a foot in the door. The strategy was also designed to dampen down concern customers had about the risk of buying from a major single source. But it also assumed those companies had the same standards of food quality and safety as Fonterra's.

In 2013, just when the infant formula debacle had started to fade, residue of the chemical DCD – a nitrate-inhibiting pasture agrichemical – was detected in milk. It drummed up further bad press. Then the botulism scandal completed a trifecta of horrors. It was a little-known "-ism" until Fonterra issued a warning that a trace of the bacteria had been detected in routine testing. But not to worry, the company assured the public, it was just erring on the side of caution.

The test result was eventually traced back to a pipe that may have not been cleaned properly (for anyone who has worked in a cowshed, this is inexplicable and inexcusable). Then it was



A baby who drank tainted milk powder receives an ultrasonic examination for possible kidney stones at the Chengdu Children's Hospital in Sichuan Province, China, in 2008.

decided the test result was a false reading, which raised questions about whether Fonterra had anyone who actually knew what they were doing.

If this hadn't been preceded by the melamine disaster, the announcement may have looked like over-cautious responsibility. Instead, it just looked incompetent. Fonterra's branding of "Dairy for Life" was starting to seem like satire. Indeed, the whole debacle led to the company being labelled Fonterror by one wit. Even the Chinese state media had something to say about Fonterra's mounting track record, suggesting its failings might be systemic.

Possibly the most damaging aspect of these sagas was the damage to Fonterra's reputation, not only with consumers but also its business partners. One of the companies it had a joint venture with to manufacture infant formula was Danone, the French-based conglomerate that's in the same league as Kraft and Nestlé. Danone were understandably displeased by the fallout and took legal action against Fonterra, a case that has been crawling through the courts with no immediate end in sight.

Despite all this, Fonterra's payout managed to bounce back into territory that kept farmers quiet in the 2009-10 season. Ironically, this is when the real Chinese demand started, as buyers looked increasingly overseas for milk supply. While Fonterra's reputation had taken a hit with the melamine formula scandal, it had the effect of Chinese consumers veering away from domestic product and creating a premium for any made overseas. It also meant Chinese buyers looked to spread their risk by not relying as heavily on New Zealand to meet their demands.

After the 2007 capital structure proposal was long buried, Fonterra managed to tinker with the structure of the company, making a number of changes in 2012. A proposal to let farmers trade company shares among themselves met with shareholder approval, a step that addressed the problem of capital washing in and out of the company's balance sheet.

Wilson says this has given the firm much-needed capital stability.

Another change was the offering of shares to outside investors, although in a strictly limited format. The Fonterra Shareholder Fund was a severely diluted version of the earlier proposal. Any investors in this fund have rights only to dividend payouts – it doesn't give them any ownership shares or voting rights.

The other development during this period was Fonterra's establishment of the GlobalDairyTrade (GDT) auction platform to sell product. It was launched in July 2008. The auction was a move that went against trends in many food and commodity businesses. Meat, seafood and wool industries have been trying to move away from spot, on-the-day prices in the supply chain because of the inherent volatility and instability. Many in those industries have seen how destructive this is and its role as a major factor in their decline. They now prefer to lock in long-term contracts to give everyone certainty, which requires knowing your customers along the whole supply chain – starting at the end consumer. Companies like Icebreaker have teamed up with merino wool suppliers on this basis and it has been a very successful model.

But Fonterra decided otherwise.

Shaskey says the GlobalDairyTrade was initially set up as a mechanism to establish the true market value of milk in order to give Fonterra's internal calculations some transparency. "The rationale for the auction in the first instance goes back to the capital structure. You need a way to determine the commodity value. The auction is about that – what is the commodity value of milk? You have to come to a benchmark to measure the financial performance of the added-value parts of Fonterra."

But then the focus changed. "They thought they could sell all their production on that platform."

He says the person initially in charge of the auction had no experience in international dairy trade whatsoever. "He was an academic who believed you could sell all your product on GDT, which you cannot do. He believed you could sell all your product in one product form, which you cannot do. So they ended up putting up more and more volume to the point where it popped. It's ridiculous. They needed to put enough on – say 10 to 15 per cent of our production; some number that was at the lower end of the spectrum."

Shaskey saw the move as part of a growing arrogance within Fonterra towards its customers. "I first started selling dairy products to Asia in 1980. Even then, we had customers of 20 years' standing who were still customers in 2007 when the GDT was launched. They were the backbone of the commodity product uptake. They were simply told, 'You've got no priority anymore. If you want to buy our products, you go on the auction.' It was disastrous. You don't get high-handed and arrogant in the way you treat your customers.

"[Fonterra] has now cut the volumes on the auction to get the prices back up, which was a short-term win. But they don't have the capability in their sales force anymore to sell product. In a co-op, you have to have fantastic relationships with your customers, because you have to be certain you can sell all your product at a fair market price. Co-ops are very focused on building relationships for the longer term. Fonterra is the unfortunate exception to that."

Fonterra chairman John Wilson: "Huge growth over the past five years means we've had to invest significantly in stainless steel to process the milk."

THE BOTULISM SCANDAL COMPLETED THE TRIFECTA OF HORRORS.

Wilson says the GDT gives Fonterra's customers the ability to buy forward for certain periods and to buy at prices that suit them. "Obviously, when you're dealing with such volatility, neither [Fonterra] nor our customers want to lock in on long-term supply or purchase agreements. GDT gives our customers the ability to manage their risk a bit more than they were able to in the past."

He says the way sales are carried out now, particularly online, has also changed how the market operates.

The high-handed attitude Shaskey describes isn't confined to overseas customers. Some Kiwi businesses that supply RD1, the rural supplies retailer owned by Fonterra, were told last year they'd have to cut their prices. One local business owner, who didn't want to be named, said: "They told their suppliers, 'You'll now give us 10 per cent discount… Oh, and we're taking trading terms out to 60 days…' No discussion, no negotiation."

Despite Fonterra's slogans about moving into higher-value products, this side of the business hasn't followed the same trajectory as the volumes of commodity products.

The company's own figures show revenue from ingredients more than doubled from $7.9 billion in 2003 to $16 billion today. But on the consumer and food service side of the business, over the same period it has grown much less, from $4.6 billion to $6.3 billion – an increase of 36.95 per cent. The commodity-volume side of the business is outstripping the value-added side of the business by a considerable margin.

Wilson says the co-op has seen unprecedented growth in milk production and has had to spend enormous capital simply to keep up with processing this wave of milk. "Over the last five years, we've had just under 25 per cent milk growth; that's 4.9 per cent compounding annual growth rate in milk coming into Fonterra in five years. Over the previous period, since Fonterra was formed, it's been 1.7 per cent. That huge growth over the past five years means we've had to invest significantly in stainless steel to process the milk. And because of industry regulations, we have to process all the milk that becomes available.

"Over the past three years, that's been $2.4 billion of capital spent. But pleasingly, within that spend some $240 million has been invested in consumer and food service plants in New Zealand."

This shows Fonterra is moving towards higher-value products, says Wilson. But the figures he's so pleased with show how lopsided Fonterra is: $240 million is only 10 per cent of $2.4 billion.

In many ways, the drop in payout has raised the same questions that were asked but never adequately answered in 2007. Only now those questions have been amplified.

How does Fonterra raise the capital to move into products of higher value? How does it do this while remaining a farmer-owned co-operative? Or are these questions, asked every time there's a dip in payout, simply the wrong questions?

Is the fantasy of being a high-value food company just that, a fantasy? Should Fonterra stick to its knitting and be the best commodity business it can be? What should the ratio be between commodities and high-value products and how should these two parts of the business relate to each other? What is the optimum production cost that New Zealand farmers should be operating at to be both competitive and profitable? The potential answers are complicated further by a completely different environment. What looked complex and difficult less than 10 years ago has only become more so. And the answers to these questions are of national significance.

To start with, Fonterra's strengths in commodities will be challenged as never before over the coming decades. While New Zealand is currently the global dairy export king, with 34 per cent of the market, it actually produces just three per cent of the total milk produced in the world. When that other 97 per cent starts spilling across borders, New Zealand's place will be severely tested.

The US and Europe dairy sectors have traditionally focused on their domestic markets. A cluster of factors means they are beginning to look at opportunities overseas. The US, in particular, has massive potential to expand its dairy exports – more land, more political clout, more feed supply, more large global companies to partner with. It poses a direct challenge to New Zealand's global position. For now, the bulk of US product is still sold on the domestic market, unlike in New Zealand, where the local market accounts for only five per cent of consumption.

Shaskey says New Zealand will be facing increased competition from the US in product categories where Fonterra has dominated in the Chinese market. "The competitive environment has changed forever. Milk production in the US is going to keep increasing. On their West Coast, the cost of milk production is probably lower than New Zealand's average. Milk consumption in the US is pretty static. Every bit of incremental extra milk needs to be exported because the domestic consumption is not there."

He says the American dairy industry is investing heavily in processing plants in response to the increased global demand for milk-powder products. Previously, milk powder – one of our main commodity exports – wasn't attractive to US producers because other categories of dairy products in their domestic market were more valuable.

WHILE NEW ZEALAND IS THE GLOBAL DAIRY EXPORT KING, WITH 34 PER CENT OF THE MARKET, IT ACTUALLY PRODUCES JUST THREE PER CENT OF THE TOTAL MILK PRODUCED IN THE WORLD.

Infant formula, which has been a boom product for New Zealand, will become highly contested as other players move in and China looks to spread its risk of being too dependent on one supplier. Because of the other ingredients in infant formula, New Zealand is at a competitive disadvantage.

Says Shaskey: "The thing that drives China is whole milk powder and infant formula. Infant formula is less than 50 per cent milk. All the ingredients that New Zealand needs to make infant formula, other than milk, are imported. You've got Europe and the US saying, 'We don't need to import any ingredients because we have them all here.'"

And the market distortions once common in Europe and the US – such as subsidies and quotas – are gradually being removed. While it has often been assumed this would benefit New Zealand producers, because they lost those protections in the 1980s and have adapted earlier, it is also having the effect of creating new competition.

"Milk quotas in Europe ended in April [last year]. Leading up to that you've had a good 12 months of European exporters getting interested in the international market again. You've got all those people saying, 'Well, we can do these products. In fact, we've been doing these products for longer than New Zealand.'"

When Russia snubbed Europe, including its dairy products, European Union producers turned to other markets. This, along with China reducing its dairy spending, were the two major factors that drove dairy prices down over the past season. While these kinds of political disruptions can be seen as one-off events, the changes they bring about can become the new normal.

China's phenomenal growth in recent decades was a moment in history and Fonterra has done very well out of that growth. It will continue to be a mainstay market.

But that historical high has passed. China's economy is slowing, which has seen it pull back on spending in all commodities – iron ore prices have taken a particularly sharp dive – and the Chinese government is rethinking its next stage of economic development. Although New Zealand accounts for more than half of China's dairy imports, China manages to produce 85 per cent of its own dairy needs. China has also been buying our cows on a large scale. At the peak, in 2014, New Zealand sent around 65,000 heifers to China. Australia and Uruguay have also been involved in this trade.

Rabobank's Moynihan says other markets will emerge as China settles into more moderate growth. "The Chinese market is maturing. We still expect China will remain the largest importer. But the period of Chinese-led global growth in dairy – between 2010 and 2014 – is largely over.

"We think the next period out to 2020 is going to be much more broad-based demand growth. You'll see other regions like Southeast Asia, the Middle East, Africa and Latin America play a much greater role in driving the global dairy market, which is actually healthy for the market. The downside is those markets don't have China's price tolerance. Its willingness, and ability, to pay is higher than most of those markets."

What this all adds up to is one of the most volatile commodities in the world. "What we've got in dairy is a highly volatile global commodity, even compared to things like sugar, corn… oil. Things like skim milk powder are now well up there, in terms of statistical volatility. Dairy never used to be – pre-2006.

"That's where the mix becomes a challenge for New Zealand, because you can have high leverage and debt if you've got low volatility. Or you can have high volatility with low debt. But you can't have both. If you've got both, it increases the risk. The industry has to deal with that and we're already seeing some of the effects on the farm."

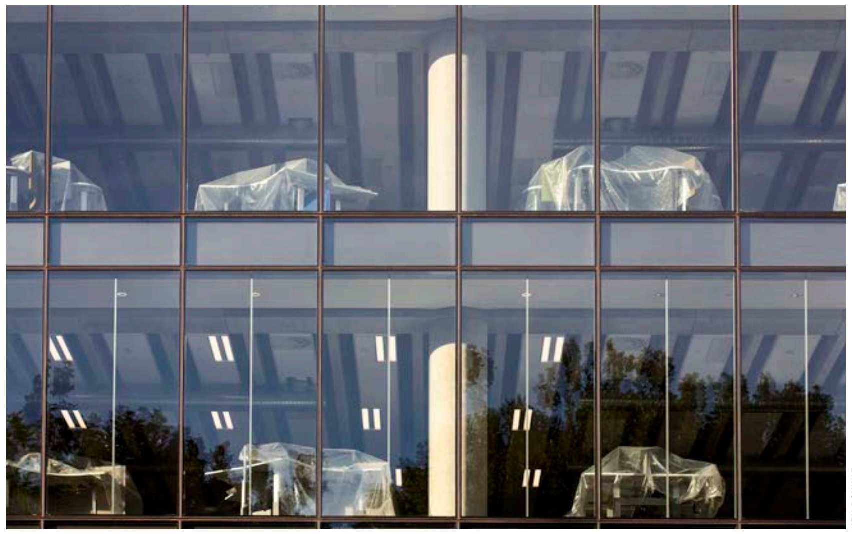
Some of the fallout has been brutal, with stocking rates and feed budgets slashed. There's a wide diversity in the business structure of farms, so the impact will vary. But across the sector, costs will be drastically reduced.

These cost structures are not something farmers can back out of easily. Money, once borrowed, has to be paid back. Feed contracts can be long-term. And the stocking rates that were increased to pay for it all cannot be ditched completely. Those who have high debt will not only be working for the banks for nothing for the foreseeable future, they will also likely incur more debt to simply limp along through this period. This season's payout will be felt for years to come.

These are the immediate and obvious consequences. What receives less attention is the underlying structural issues that have led to the current problems in the first place. One such problem is how the sinking of so much capital value into farms has also robbed Fonterra of some of its potential.

DairyNZ's Luxton says that not separating out the true value of different parts of Fonterra had the effect of jacking up land values and therefore banking costs. Because land was sold at a premium for dairy conversions, "a large amount of the value in Fonterra was essentially gifted to retiring sheep and beef farmers. If they'd been able to separate the added-value part of the business into a share of some sort, they would have been able to keep land prices rather lower and one of their major costs – interest costs on land – at a more reasonable level."

Luxton is not alone in suggesting the different parts of the Fonterra business – commodity and value-added – should be separated. A number of people in the past, including van der Heyden, have floated the idea of a split between the core co-operative that picks up and processes the milk into commodities and the branded side of the business.



The developers of Fonterra's new Auckland headquarters were told the farming co-operative was closely linked to the land, so it was important the building reflected its "environmentally conscious and sustainable approach to business".

Luxton, who has a deep connection to co-operatives but is also open to other models, thinks it's a solution that would work, without compromising the core values of the co-operative model. "They could separate their value-add business, list it, get some real capital grunt behind it and make it totally separate from the co-op that supplies the commodity products."

Shaskey believes such a move would resolve the internal conflict over Fonterra's direction. He suggests it should have an 80-20 split between commodities and high-value.

"Fonterra, the co-op, should be a stand-alone commodity business. They should list their consumer products business and that would be perfectly fine. That business would be an arm's-length customer of the commodity business for the milk that it requires to run its business."

The counter-argument is that letting in outside ownership would give away some of the profits to outside investors and overseas interests. This argument is not entirely fallacious. But it is happening, anyway. Fonterra has recently entered into a joint venture with Chinese company Beingmate to manufacture infant formula, one of many such joint ventures it's part of throughout the globe. Fonterra's stake looks promising, but it will be some time before that promise materialises. If it does, the benefit will go to both farmers and overseas investors.

The constant talk of entering into the high-value arena has worn a little thin with many farmers. Watters says the lacklustre performance of the value-added business hasn't escaped farmers' notice. "We certainly need to see the value-added part of the business performing, because in low-milk-price years, that side of the business should be generating increased revenue and increased dividends. That was the big disappointment of last season, that it didn't occur. The dividend didn't go up like it should have. At the meetings I went to, the farmers were as disappointed as I've ever seen them."

The slashing of the payout will be a turning point for the dairy industry and the country as a whole. It remains to be seen what direction that turn will take, but Watters says something has to shift. "You do get some change points and I think this is one of them. Just what that change will be, I don't know. There will be a bit less growth, a bit less investment. Less growth can be turned to Fonterra's advantage; it doesn't have to build all those extra factories. They are growing that value-added, but not at the same rate."

He says if those changes don't happen, the dairy industry – and the country as a whole – could be faced with a pretty dreary future. "A future based on just producing bags of whole milk powder with volatile prices isn't that exciting." +