



# Agribusiness: Maximising value

Global growth rate

**3.83%**



NZ advantage score

**16.4**



## Shift from volume to value

Ensuring on-farm productivity gains has been the recent focus of the agribusiness industry, resulting in increased export volumes and “doing more with less”.

As it stands, New Zealand is the world's 12<sup>th</sup> largest agricultural exporter, the top dairy product exporter, the top sheep meat exporter, and second top wool exporter and softwood log exporter. The agribusiness industry is producing 70% of New Zealand's total goods exports.<sup>21</sup> Yet, agribusiness in New Zealand captures less than 15% of the potential value of export earnings.<sup>22</sup>

In response, the industry recognises the need to shift from a volume-driven to value-driven strategy by achieving a better balance between greater value and increased volume. However, a number of potential disruptors may transform the industry and affect any value-driven strategy.

## Disruption drivers in agribusiness

We have identified two key disruption drivers in the agribusiness industry:<sup>23</sup>

- Global megatrends that intensify the transformation within agribusiness
- Accelerators that will amplify the speed of disruption in agribusiness

### Disruption driver 1: Global megatrends

The global megatrends that may intensify the disruption of agribusiness, which are also relevant to New Zealand are:

#### Demographic shifts

The world population will likely reach about 9 billion, with the urban middle class increasing to 4.9 billion, by 2030.<sup>24</sup> To support the resulting increase in food demand, the Food and Agricultural Organisation (FAO) predicts that food production requirements will need to increase almost 50% by 2050, from 2012 production levels.<sup>25</sup> Therefore, the FAO has emphasised the need to consider international trade, natural resources and access to food.<sup>26</sup>

#### Climate change

Changing weather conditions will impact the future of agribusiness, with its likely effect on soil quality and the quality of produce. According to the Organisation for Economic Co-operation and Development (OECD), considerable efforts have been devoted to developing technologies and practices that can help the agricultural sector to reduce its greenhouse gas emissions and adapt to the impacts of climate change. The uptake of these climate-friendly technologies and practices, however, remains low.<sup>27</sup>

## Agricultural technologies (agritech)

Technology such as drones, robots and sharing platforms are already available today. New agricultural technologies are likely to trigger further cost reductions. For example, developments in agritech have improved the availability of information to make better decisions to help farmers improve productivity gains, develop more sustainable farming practices and better understand value chains.

## Increasing value chain integration

Agribusiness firms have started to integrate vertically to optimise their value within the value chain.<sup>28</sup> Looking ahead, there is also a need to decrease the complexity of agribusiness value chains.<sup>29</sup> A Deloitte study into the agribusiness industry found farmers already face high complexity and that tomorrow's farmers will deal with even more competition and technologies after the disruption. Farmers, therefore, are willing to pay for integrated solutions.<sup>30</sup>

## Disruption driver 2: Accelerators

The trends that are accelerating the speed of disruption in the agriculture industry are:<sup>31</sup>

### New customer preferences

Consumers are increasingly aware of health concerns and supply traceability, and are looking for more personalised products and solutions on demand. In addition, consumers are concerned with reducing ecological footprints and improving or ensuring sustainability.

**Emerging technologies**

Emerging technologies include the development of biotechnological tissues, advanced manufacturing technologies such as 3D printing and robotics, and connected devices and sensors that transmit data via mobile and smart connectivity. Another example is autonomous vehicles that perform tasks like phenotyping and fumigating plants. Driverless vehicles could decrease transport costs by up to 40%, as well as transport time. This could benefit agribusiness exporters, allowing them to transport goods to a port or airport (and to a final customer) at lower cost.<sup>32</sup>

**Untapped opportunities for New Zealand agribusiness**

Although the industry recognises the need to shift towards a value-driven strategy, there is a lack of information and debate on practical solutions to achieve this goal.

In Figure 8, we identify some practical solutions to contribute to the shift within the agribusiness industry from a volume-driven to a value-driven strategy.

**Increase efficiency along the supply value chain**

The average loss of 33% from initial production to final product means that a large amount of value is lost along the value chain.<sup>33</sup> According to our research, up to 22% of these losses could be saved with more efficient supply chains.<sup>34</sup> There is also an opportunity to optimise the transport and movement of livestock and produce within New Zealand to limit inefficiencies along the value chain.

**Intermediate shifts and integrated solutions across the value chain**

There is an increasing trend of firms trying to bridge or skip value chain steps and reduce supply chain inefficiency through direct-to-consumer delivery and food e-commerce.<sup>35</sup>

Traditionally, international trade requires the involvement of a specific type of intermediary – a “pure trader”. These companies are not transporters or producers of goods – their sole business activity is buying from and/or selling to overseas actors in the value chain who are often not the final consumer.

The dominance of these traditional intermediaries is being eroded. Online marketplaces for goods and services have become a feature of international trade. For example, dairy products from New Zealand’s Fonterra use e-commerce platforms to connect directly with customers in Asia.

**Collaboration in global value chains**

The benefits of better and smarter collaboration in global value chains are vast and include:<sup>36</sup>

- Better global connections and productivity by facilitating innovation
- Sophistication and diversification of exports
- Enhanced visibility across value chains

Yet, New Zealand has significantly lower engagement in global value chains relative to other OECD countries.<sup>37</sup> New Zealand’s low engagement in global value chains calls for action to remove policy barriers that may inhibit participation in them.<sup>38</sup>

**Pursue new and niche products**

In identifying new products, exporters must look at New Zealand’s comparative advantage in production, its position in the market, and the information available on what consumers want. Expanding into new markets would complement a value-focussed strategy. Examples of new product opportunities are:

- Adding value to raw material ingredients, which at present are exported as unprocessed commodities
- Synthetic meats, which are seen as an environmentally friendly protein substitute

Figure 8: Strategies to maximise value in agribusiness



Source: Deloitte Access Economics

- Targeting the rising middle class. The rapid increase in incomes in Asia, especially from China, has led to increased demand for high quality agribusiness products
- Taking full advantage of the information available on what consumers want. MBIE recently identified a range of emerging opportunities for Asian consumers from salmon and almonds, to cherries and kiwifruit<sup>39</sup>

### Maintain quality of products

New Zealand's agribusiness industry needs to continue to differentiate itself from its global competitors by enhancing its established reputation for "clean and green" high quality produce. Changing consumer preferences also emphasises that competing on price alone may not be the most effective strategy in the future. New Zealand should be able to increase the value of exports given consumers are willing to pay a premium for quality sustainable products.

### Adopt agritech

Agri-tech will enable new business models, reduce transaction costs and open up access to new global markets. Massey University recently found that agritech in New Zealand is currently seen as just another tool to provide continuous improvements and incremental gains.<sup>40</sup> If New Zealand wishes to remain internationally competitive, the agribusiness industry must look to explore and accelerate the adoption of agritech to grow the value of exports. Adopting agritech will increase the value of exports by:

- Helping New Zealand agribusiness to be more efficient in coping with increasing environmental constraints
- Triggering cost reductions
- Expanding market opportunities

## Challenges for New Zealand's agribusiness industry

### The need for investment in sustainable farming practice

Increased competition for limited resources means New Zealand agribusinesses must look at developing sustainable farming practices.<sup>41</sup> This can both reduce input costs and develop a positive reputation among consumers.<sup>42</sup> According to a Deloitte study into the agribusiness industry, contained and vertical farming are the most recent innovations that are about to take-off.<sup>43</sup> There is, however, a concern that the current level of investment in sustainable farming practices may not be enough.

### Age of farmers

The average age of farmers is rising and currently sits at 48, with over 15% of farmers over the age of 65.<sup>44</sup> The challenge is attracting young people to the agribusiness industry. Many farming businesses will also change hands in the coming years because of their current owners' age. This may result in a push towards consolidation, which could help New Zealand agribusinesses stay competitive against large, global corporates that can produce more efficiently at lower costs.

### Rethinking sales channels into China

New Zealand experience in China has shown the importance of unofficial daigou channels, in which products are bought offshore on behalf of customers within China. This is enabled by the spread of mobile phones and online e-commerce platforms like WeChat and Alibaba. New Zealand companies have leveraged these channels to gain greater access into the Chinese market. But the introduction of a 11.9% tax on daigou products will put a damper on further growth, forcing New Zealand businesses to rethink their sales channels into the Chinese market.

## Alternative protein sources

There is growing worldwide capability to produce protein through alternative processes that could compete against the traditional way New Zealand has produced protein. For example, firms are developing plant-based meat and eggs to harness "sustainable protein".<sup>45</sup> How New Zealand responds to this market shift will determine how we grow our comparative advantage as a producer of food using more innovative means.

### Positioning for prosperity

New Zealand can be a long-term winner in agribusiness by focussing its strategy more on growing value rather than volume. Yet, there are big challenges ahead.

Businesses and government will need to take bold steps to take advantage of the opportunities – especially in the next ten years as many of the biggest challenges hit home. Important questions need to be addressed if agribusiness is to remain a key driver for prosperity in New Zealand.

1. How do we attract investment to develop sustainable farming practices?
2. How do we make agribusiness attractive to the younger workforce?
3. How do we find new ways to effectively target the right consumers to maximise value?
4. How do we respond to the sustainable protein market shift?
5. How do we ensure regional co-ordination within New Zealand is optimised to maximise value?

Overall, structural change is necessary to collectively incentivise and drive change to maximize value within agribusiness.