

# CREATING VOLUME AND VALUE

In New Zealand food and beverage  
exports

*Pro bono discussion document; v007; May 2020*

# CREATING VOLUME AND VALUE

*In New Zealand food and beverage exports*

Pro-bono discussion document

May 2020

v007

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# AGENDA

- WHAT PROBLEM ARE WE TRYING TO SOLVE?
- WHAT HAVE BEEN THE ACTUAL RESULTS OVER THE LAST 20 YEARS?
- ARE WE REALLY TAPPED OUT ON VOLUME? CAN WE PRODUCE MORE VOLUME?
- WHAT IS VALUE?
- WHAT IS A POTENTIAL STRATEGY GOING FORWARD?

# New Zealand has been given the challenge of shifting food and beverage (F&B) exports “from volume to value”

## LAST TWENTY YEARS

Increasing export volume  
Increasing export prices  
Increasing export value

HOWEVER

Growing carbon footprint  
  
Growing environmental impacts (e.g. dairy runoff)

## DESIRED FUTURE OUTCOME

Flat or falling volume  
Increasing export prices  
Increasing export value

SUPPORTING

Falling carbon footprint  
  
Declining environmental impacts

*The implied concept is more revenue from less output*

*Unfortunately, shifting from volume to value is easy to say, but hard to do*

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# Why is it challenging to shift food and beverage (F&B) exports from volume to value?

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## EXAMPLES

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### WHY IS THIS HARD?

Flat or falling volume  
Increasing export prices  
Increasing export value

1. New Zealand already achieves relatively high average export prices (relative to peers)\*
2. Falling volumes will cause declining scale efficiencies (e.g. less milk per dryer)
3. May lack the skills required
4. May lack the market knowledge required
5. Changing will be capital intensive, but NZ has limited free capital available
6. Breaking into existing products and industries as a new player is difficult

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\* Because on a "pound for pound" basis, meat and dairy (what NZ predominantly exports) are worth more than grain and other plants (what many other countries predominantly export)

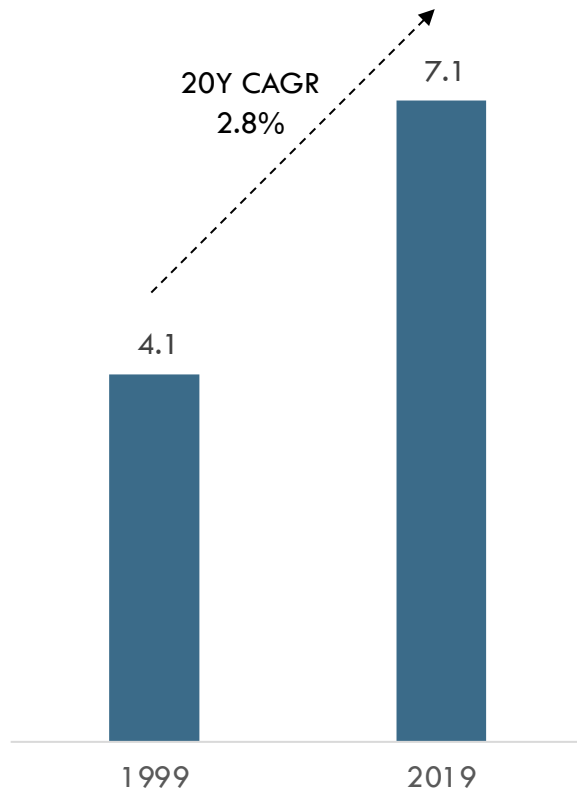
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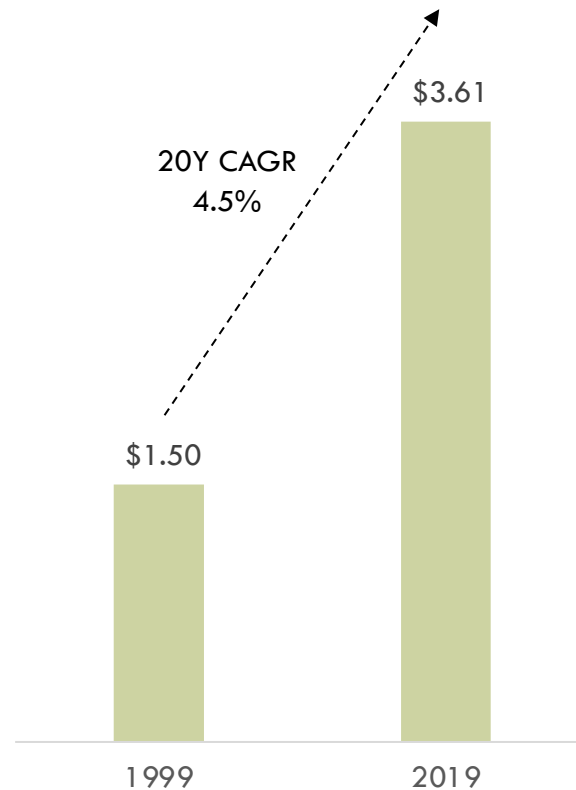
Over the past twenty years, New Zealand has grown F&B export volume and value (both prices and total value)

**NZ F&B EXPORT VOLUME**  
Kg; billions; 1999 vs. 2019



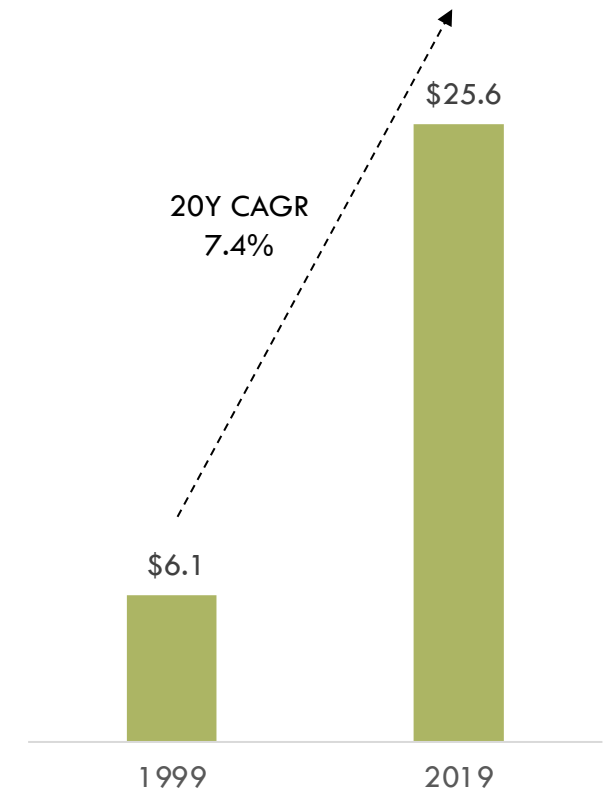
**NZ F&B EXPORT \$/KG**  
US\$/kg; 1999 vs. 2019

NOT INFLATION ADJUSTED



**NZ F&B EXPORT VALUE**  
US\$; billions; 1999 vs. 2019

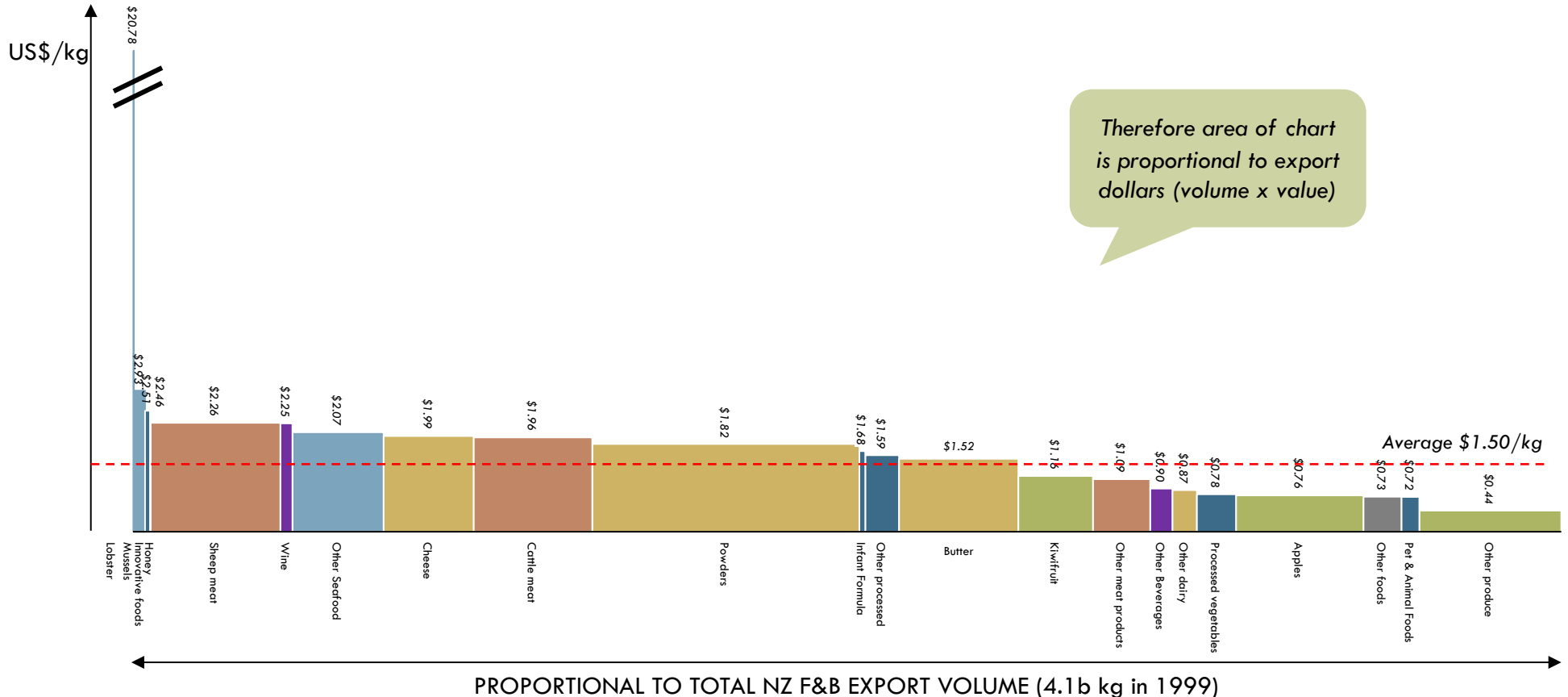
NOT INFLATION ADJUSTED



In 1999, NZ F&B exports achieved an average value of \$1.50 per kg across 4.1b kg, though with wide variation across products

## NZ F&B EXPORTS VOLUME VERSUS VALUE BY CATEGORY IN 1999

Kg; m; US\$/kg; 1999

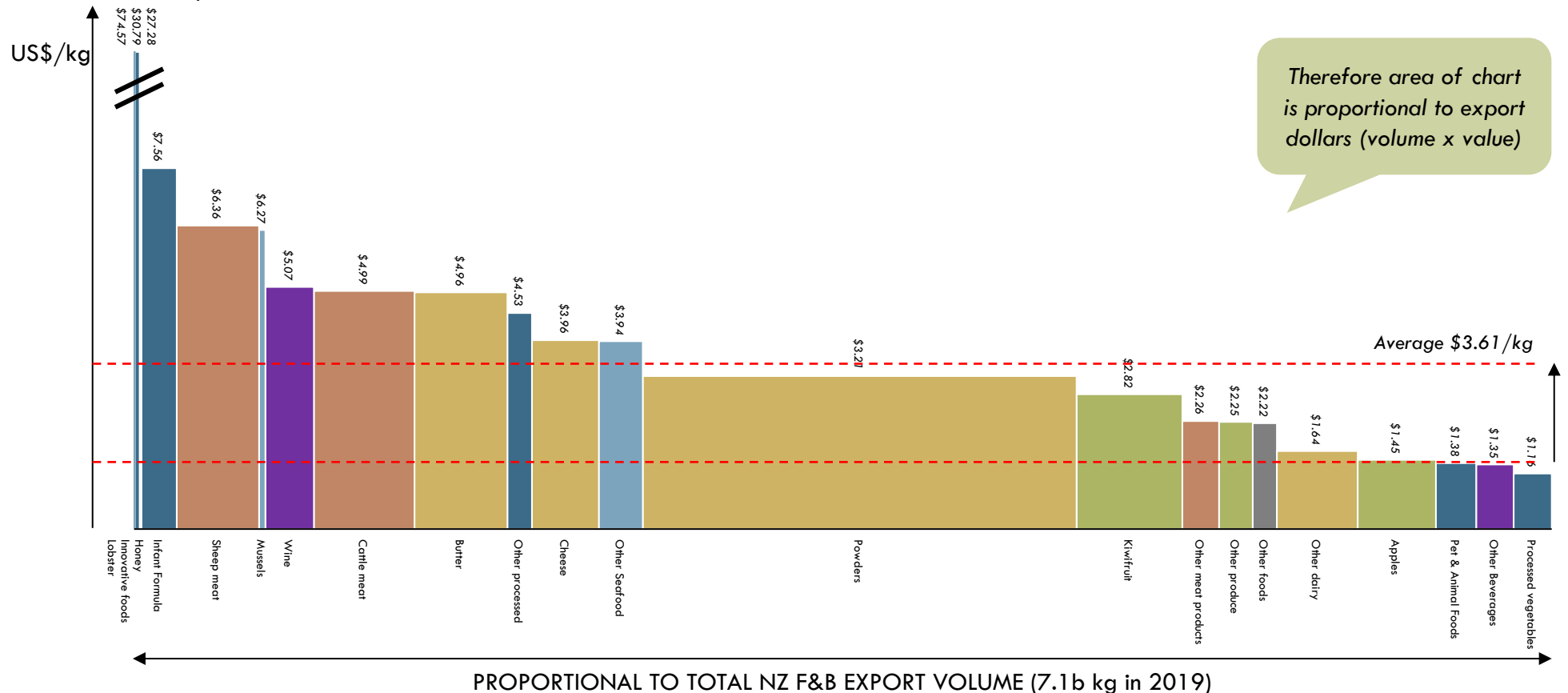




In 2019, NZ F&B exports achieved an average value of \$3.61 per kg across 7.1b kg, though with wide variation across products

## NZ F&B EXPORTS VOLUME VERSUS VALUE BY CATEGORY IN 2019

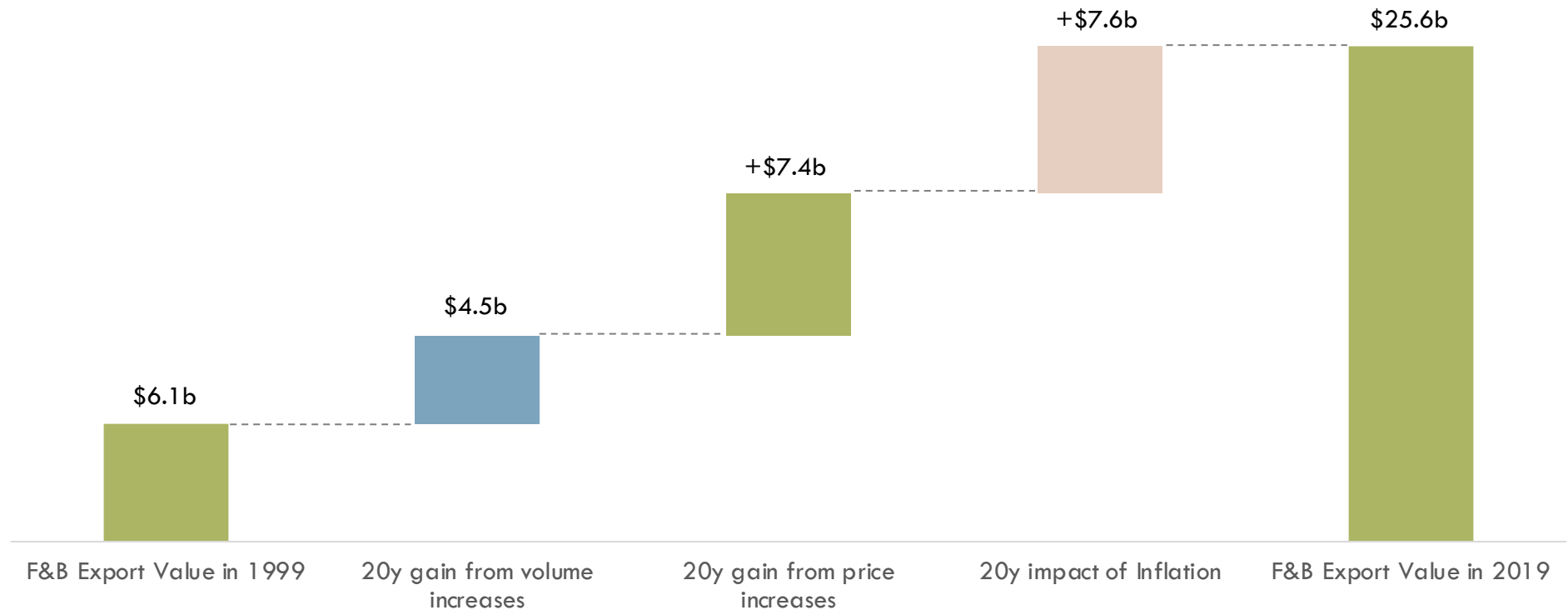
KG; m; US\$/kg; 2019



*New Zealand export value growth has come from (1) more volume, (2) more value and (3) inflation*

## DRIVERS OF NZ F&B EXPORT VALUE GROWTH

US\$; b; 1999 vs. 2019



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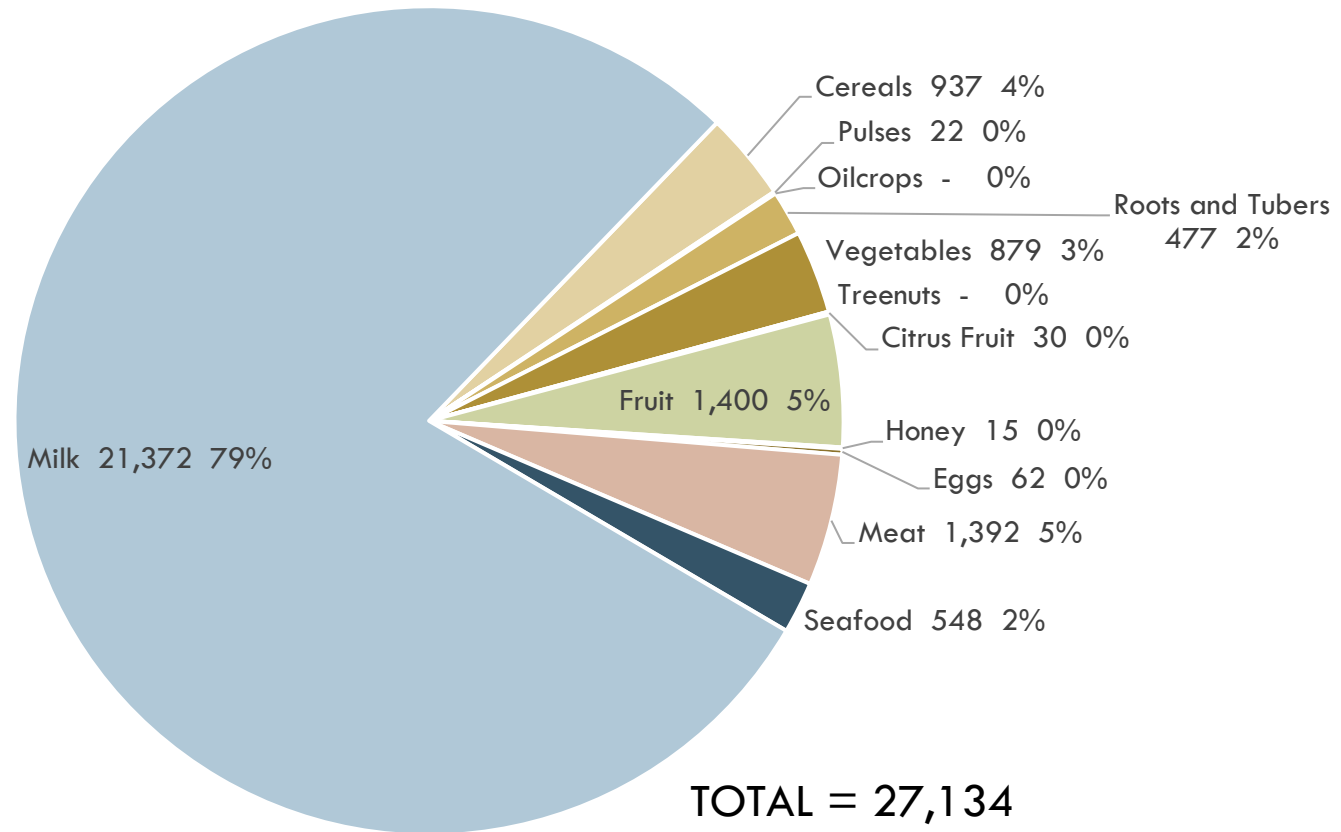
# *We need to avoid the simplistic concept that all “volume” is bad*

- We produce a normal, wide range of foods at a volume suitable for 5m people and a much more narrow range of specific export foods for the world.
- We need to separate two separate “volume” issues:
  - the clear issue of “too many cows wandering around” (true)
  - the vague concept that we currently make too much food from our land (false)
- Not all volume is equal; volume growth of some products is good; volume growth of other products presents real challenges.
- Past “volume” growth has caused numerous issues and challenges. Previous governments supported growth through “more”; more cows, more tourists, more immigrants, and more students, which has placed pressure on environment, water, infrastructure, iconic walks etc etc., while at the same time we have not actually gotten any richer.
- So it’s not about volume as such.
- Could we double horticulture exports? Yes.
- Could we double beverages? Yes.
- Could we double salmon aquaculture? Yes.
- In practice, the answer is more complex. We need to develop a food industry that looks more like a rich country’s food industry. So in those terms we need to finish the job, redirect science, complete the NZFIN, invest much more in market research, identify the growth platforms, protect the environment as part of the story.

*New Zealand produces a lot of food; however, most of it (80%) is currently milk*

## VOLUME OF FOOD PRODUCED IN NEW ZEALAND

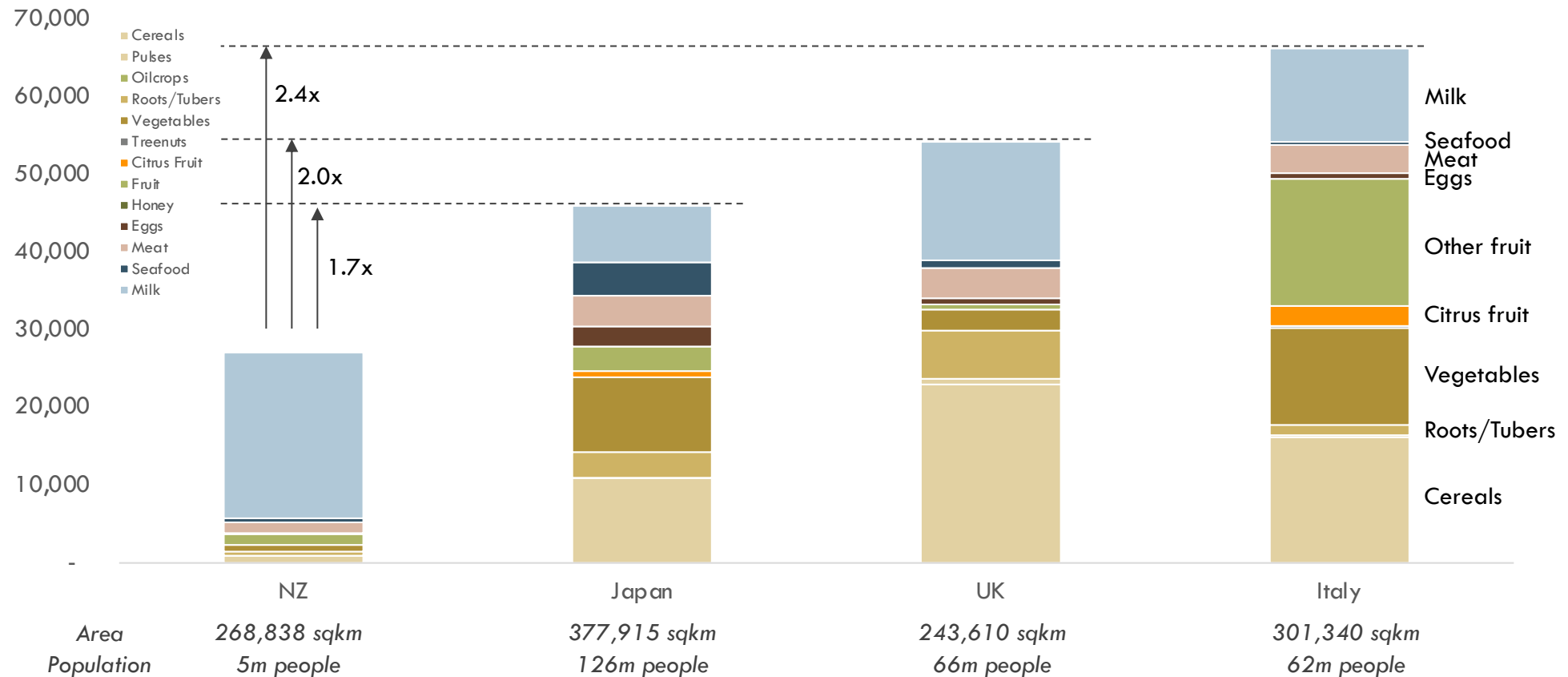
Tonnes; 000; 2017



*However, other countries of a similar size produce significantly more food (but less milk)*

## TOTAL FOOD PRODUCTION: NEW ZEALAND VS. SELECT SIMILAR SIZE PEERS

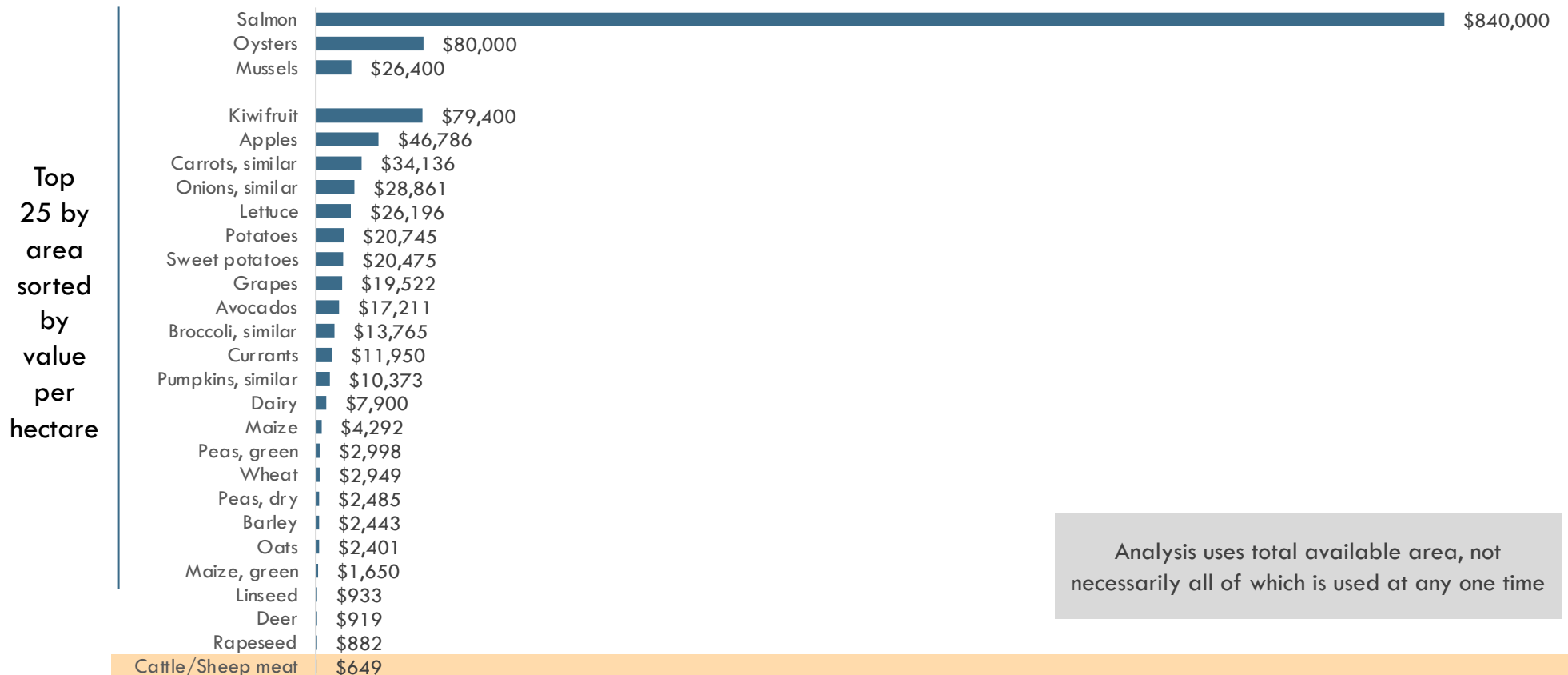
Tonnes; 000; 2017



*Land use change can increase productivity (output from inputs); products vary dramatically in terms of value created per hectare*

## REALISED NEW ZEALAND “FARMGATE” VALUE PER HECTARE OF TOTAL SPACE

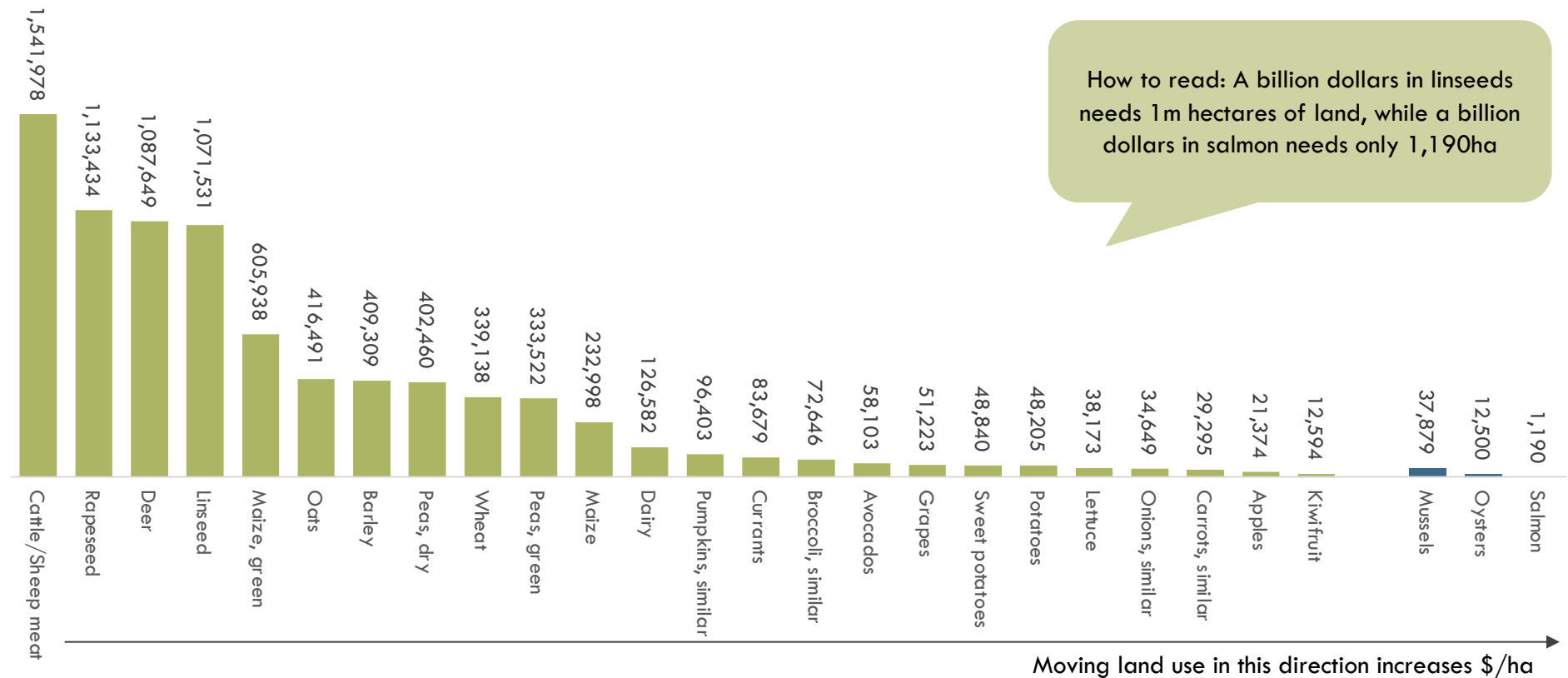
NZ\$/hectare; 2017 or as available



# As a result, creating another billion in exports requires radically different amounts of land depending on the product

## HOW MANY HECTARES ARE REQUIRE FOR A BILLION IN REVENUE?

Ha per billion; 2017 or as available



Note: excludes high productivity, but primarily indoor animals (pigs, chickens, milking sheep and milking goats); Source: UN FAO; UN FISHSTAT; Plant & Food Research Fresh Facts; Statistics NZ; DairyNZ; Beef&Lamb NZ; Zespri; NZKS; Coriolis analysis



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# The dictionary shows “value” has a wide range of meanings

## VALUE (Select definitions)

1. The monetary worth of something : *MARKET PRICE*
2. A fair return or equivalent in goods, services, or money for something exchanged
3. Relative worth, utility, or importance  
*a good value at the price*  
*had nothing of value to say*
4. Of, relating to, or being a brand of inexpensive products marketed as an alternative to other, more expensive brands  
*consumers choosing between premium brands and value brands*  
*As the economic downturn set in, value products have been "legitimized," leading rich and poor alike to buy them.*
5. Something (such as a principle or quality) intrinsically valuable or desirable  
*sought material values instead of human values*

## VALUE (transitive verb): valued; valuing

- 1 : to consider or rate highly : *PRIZE, ESTEEM*  
*values your opinion*
- 2a : to estimate or assign the monetary worth of : *APPRAISE*  
*value a necklace*
- 2b : to rate or scale in usefulness, importance, or general worth : *EVALUATE*

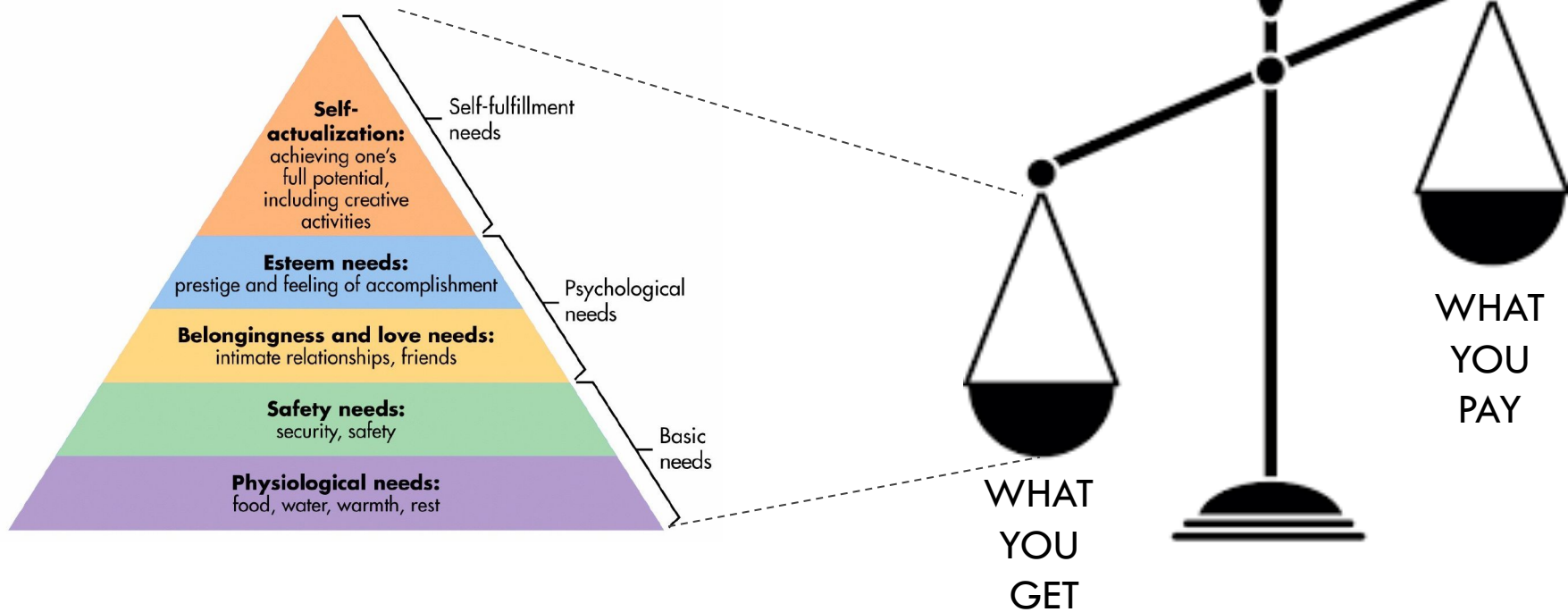


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*In the context of food and beverages, to the consumer “value” means getting needs fulfilled at an acceptable price*

## MASLOW'S HIERARCHY OF NEEDS

*Model; 1943*

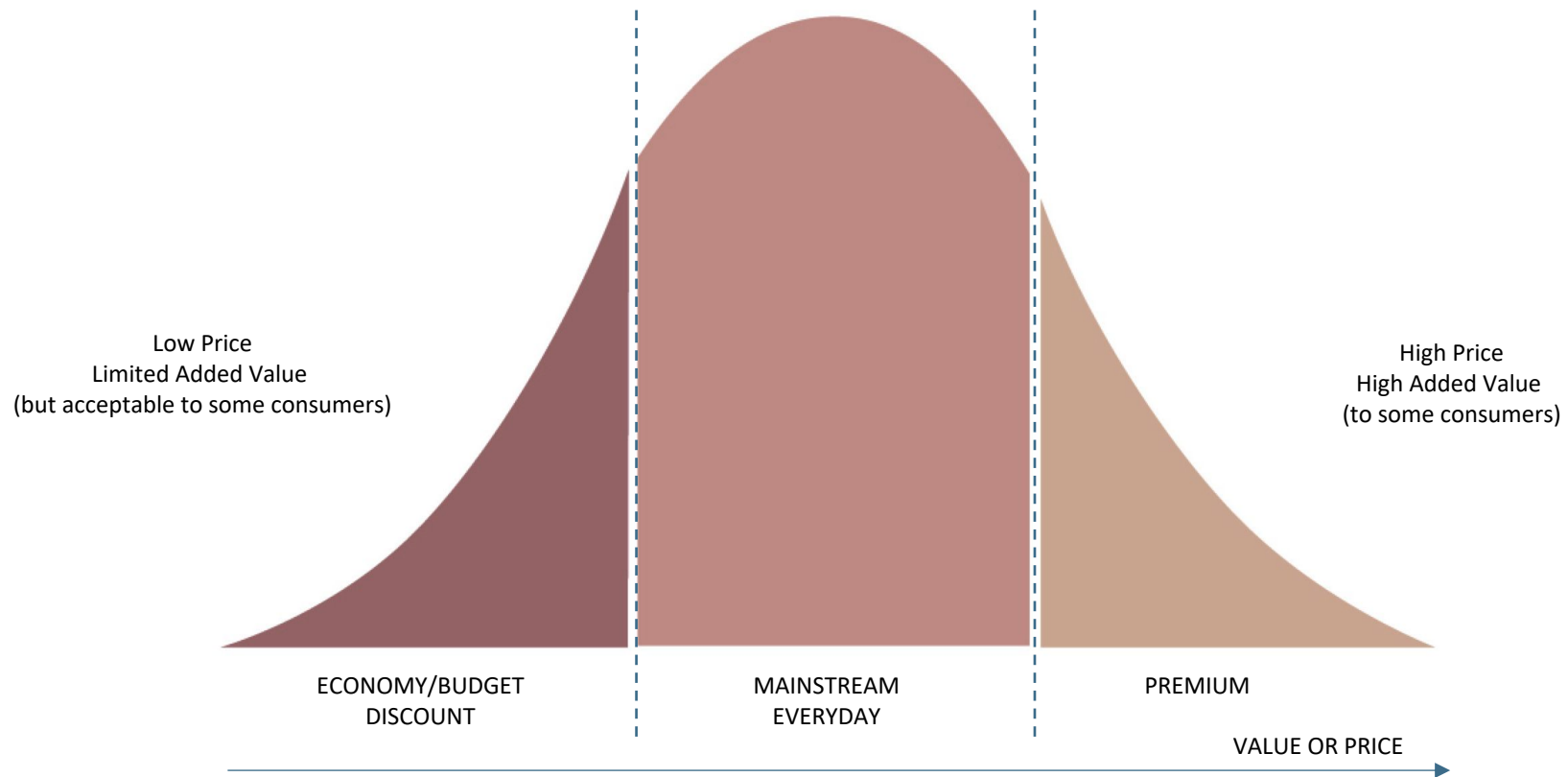


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*Added value is a relative concept (relative to other products offered) and can be effectively translated into relative price*

## SIMPLIFIED F&B CLASSIFICATION INTO THREE PRICE BASED QUALITY SEGMENTS

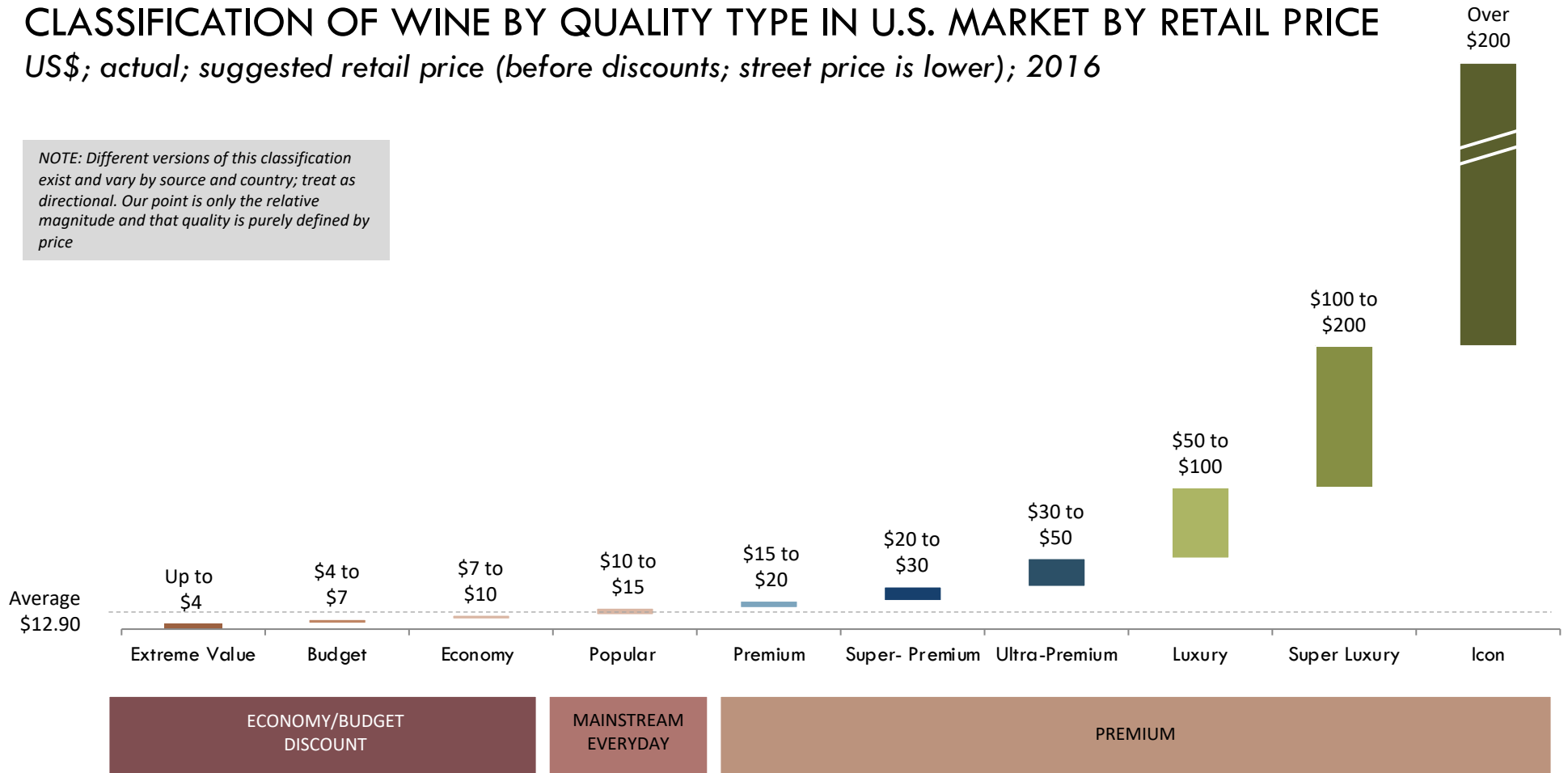
*Model; 2020*



*The wine industry defines quality according to retail price (not vice versa); if you can charge a higher price, it is a better wine*

**CLASSIFICATION OF WINE BY QUALITY TYPE IN U.S. MARKET BY RETAIL PRICE US\$; actual; suggested retail price (before discounts; street price is lower); 2016**

*NOTE: Different versions of this classification exist and vary by source and country; treat as directional. Our point is only the relative magnitude and that quality is purely defined by price*



*Note: Please do not mis-read this chart; this is only price bands; it is not proportional to volume, total sales, margin, gross profit or net profit, it just shows relative price; Source: Tincknell & Tincknell, Inc.; Wine Folly; Fredricks; Wine Institute; Coriolis analysis*

# Consumers are not uniform in their preferences; some will pay more than others

ECONOMY/BUDGET  
DISCOUNT

MAINSTREAM  
EVERYDAY

PREMIUM

Yoghurt



A\$3.60 per kg.



A\$5.00 per kg.



A\$17.20 per kg.

Breakfast  
Cereal



A\$1.80 per kg.



A\$5.50 per kg.



A\$33.40 per kg.

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*In theory any food or beverage category can “add value” through a wide range of activities, processes and claims*

## EXAMPLES OF POTENTIAL CLAIMS OR ACTIONS SUPPORTING A HIGHER VALUE

*Model; 2020*

ORGANIC	SMALL BATCH	ETHICAL	ARTISAN	FAIR TRADE
LOCALLY PRODUCED	PICTURESQUE SOURCE	RARE/LIMITED SUPPLY	CAVE/BARREL AGED	ESTATE GROWN
SUSTAINABLE	HEIRLOOM/RARE BREED	EXPENSIVE INGREDIENTS	EXPENSIVE PACKAGING	PROTECTED NAME
NAMED PRODUCER	SECRET/FAMILY RECIPE	RICH/DISTINCT FLAVOUR	FREE RANGE	GRASS FED
FAMILY OWNED	AWARD WINNING	CELEBRITY ENDORSED	PROMOTED & ADVERTISED	HAND CRAFTED

# However, in practice some products or categories are more welcoming of “added value” products than others

## FRESH PINEAPPLE



## SHELF-STABLE ASPARAGUS



## YOGHURT



... AND 211 OTHER PRODUCTS

**HARD**  
1 product/0 brands  
No premium range

**CHALLENGING**  
4 products/3 brands  
No premium range

**ATTRACTIVE**  
233 products / 25+ brands  
Extensive premium range



*“Value” is at least partially constructed by skilled marketers, albeit on top of high quality input*

## PREMIUM POSITIONING OF MOËT ICE IMPÉRIAL THROUGH PACKAGING & MARKETING

Presence; 2020

INDULGENCE  
White and gold foil and overlaid gold seal

PROVENANCE  
Champagne [AOC]  
Epernay, France  
Produit de France

PROVENANCE/  
REPUTATION  
Moët & Chandon  
Fondé en 1743

CONVENIENCE  
“Serve on Ice”  
Demi-Sec (medium dry)



PROVENANCE/ PRESTIGE  
British Royal Seal

INDULGENCE  
“By Appointment to Her Majesty  
Queen Elizabeth II Purveyors of  
Champagne”

PROVENANCE  
Message from “Benoît Gouez,  
Chef De Cave, Moët”

PROVENANCE/TRACEABLE  
Batch code, web address, QR  
Code & NM code\*



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# *Value can also be created by natural scarcity and government fiat*



EXAMPLE: NZ CRAYFISH

Value is created by nature (scarcity; cannot be farmed; only grows in select regions)

Value is created by government imposed regulations managing and constricting supply



EXAMPLE: NZ CHICKEN

Value is created by government imposed biosecurity in an industry with large economies of scale

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*To a marketer, “value” is created by all of the elements of the marketing mix*

## Marketing Mix

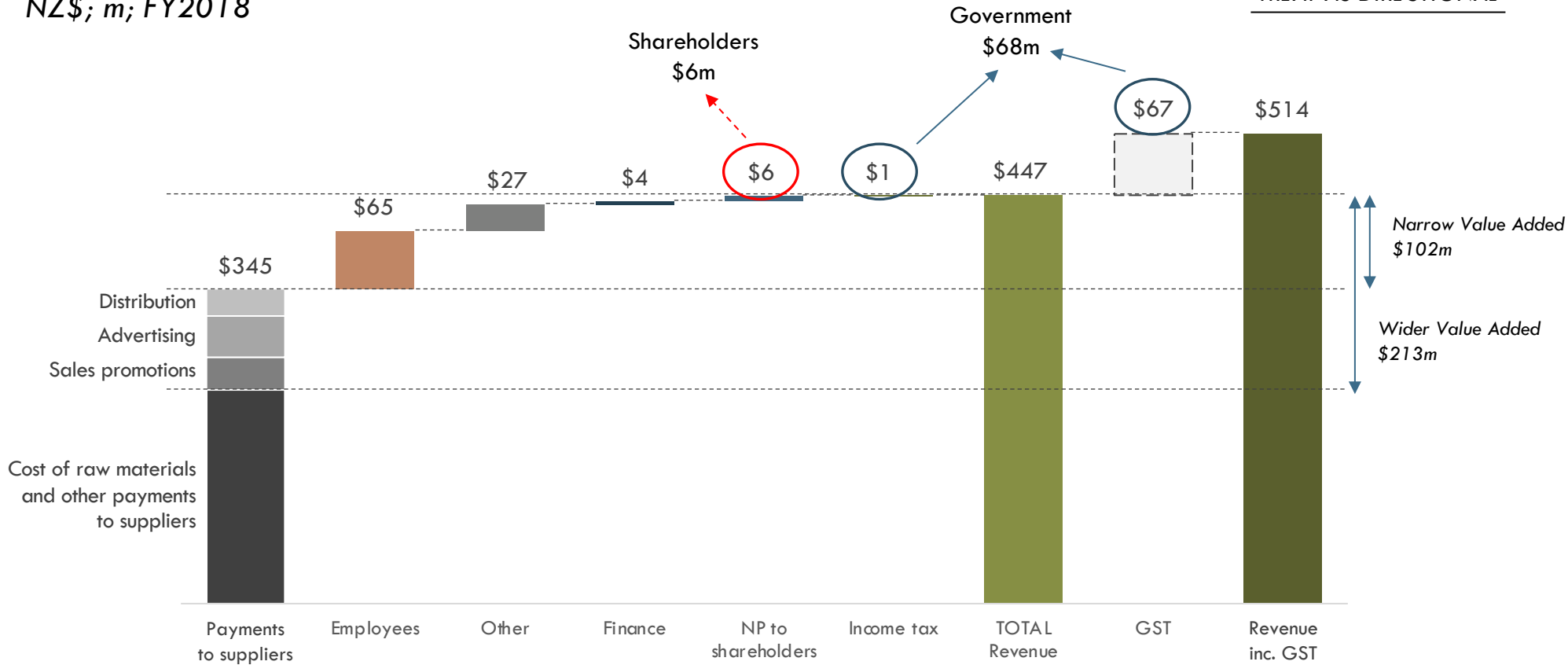
Product	Price	Promotion	Place	People
Functionality	Selling Price	Sponsorships	Distribution Channels	Service Provided
Appearance	Discounts	Advertising	Logistics	Attitude
Warranty	Payment Arrangements	Public Relations Activities	Service Levels	Customer Service
Quality	Price Matching Services	Message	Location	Appearance
Packaging	Credit Terms	Media	Market Coverage	Employee Portrayal

To an economist, “value added” is effectively the difference between cost of inputs and sales (excluding GST)

EXAMPLE: VALUE ADDED AT SUNTORY FRUCOR NZ IN FY18

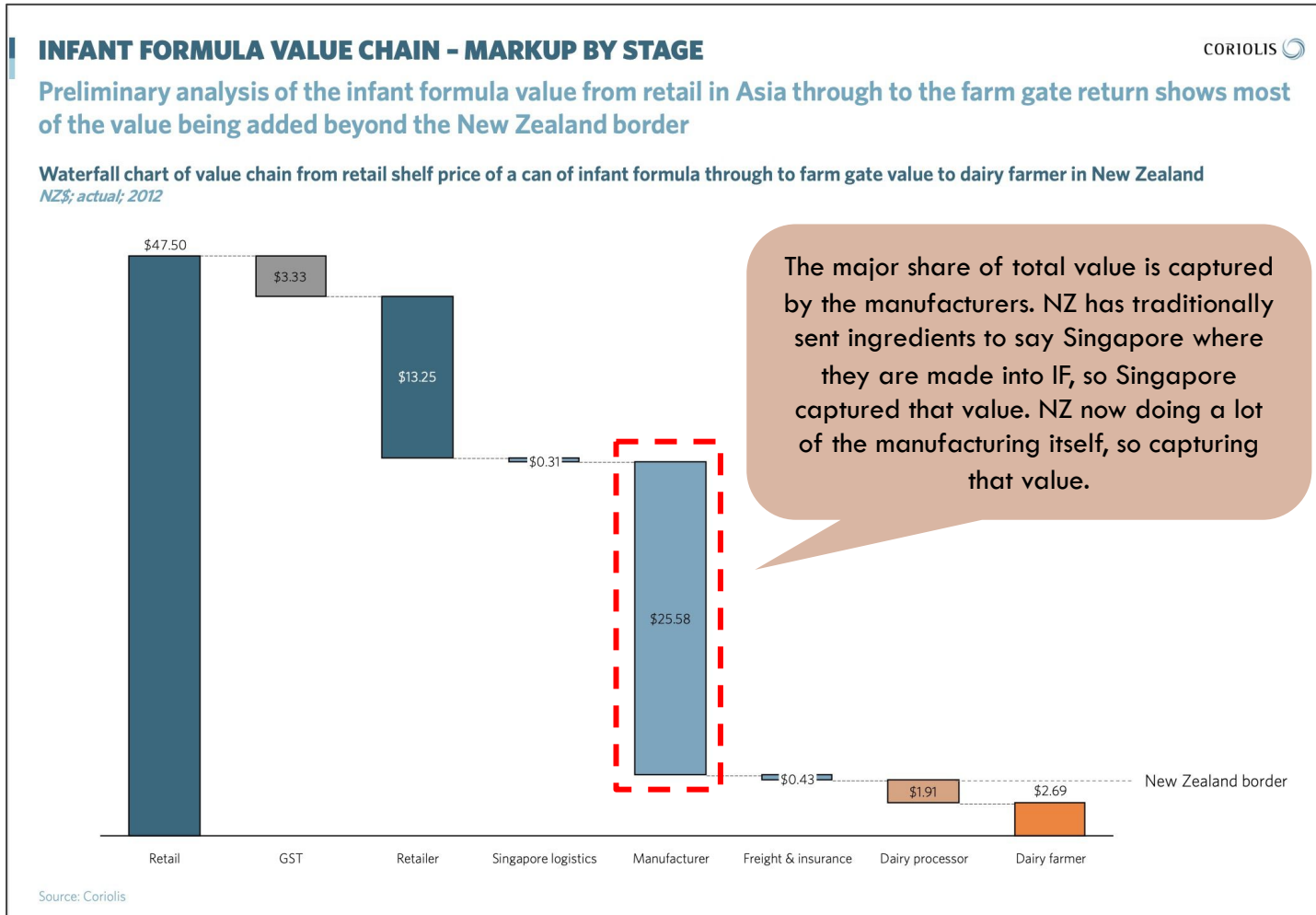
NZ\$; m; FY2018

DATA ISSUES EXIST  
TREAT AS DIRECTIONAL



Other includes \$47m in royalties; Source: Suntory Frucor New Zealand Limited financial statements for FY2018 as filed with NZ Companies Office; Coriolis classification and interpretation

In business, the “value chain” is the sum of the “value added” at each stage as the product passes from producer to consumer



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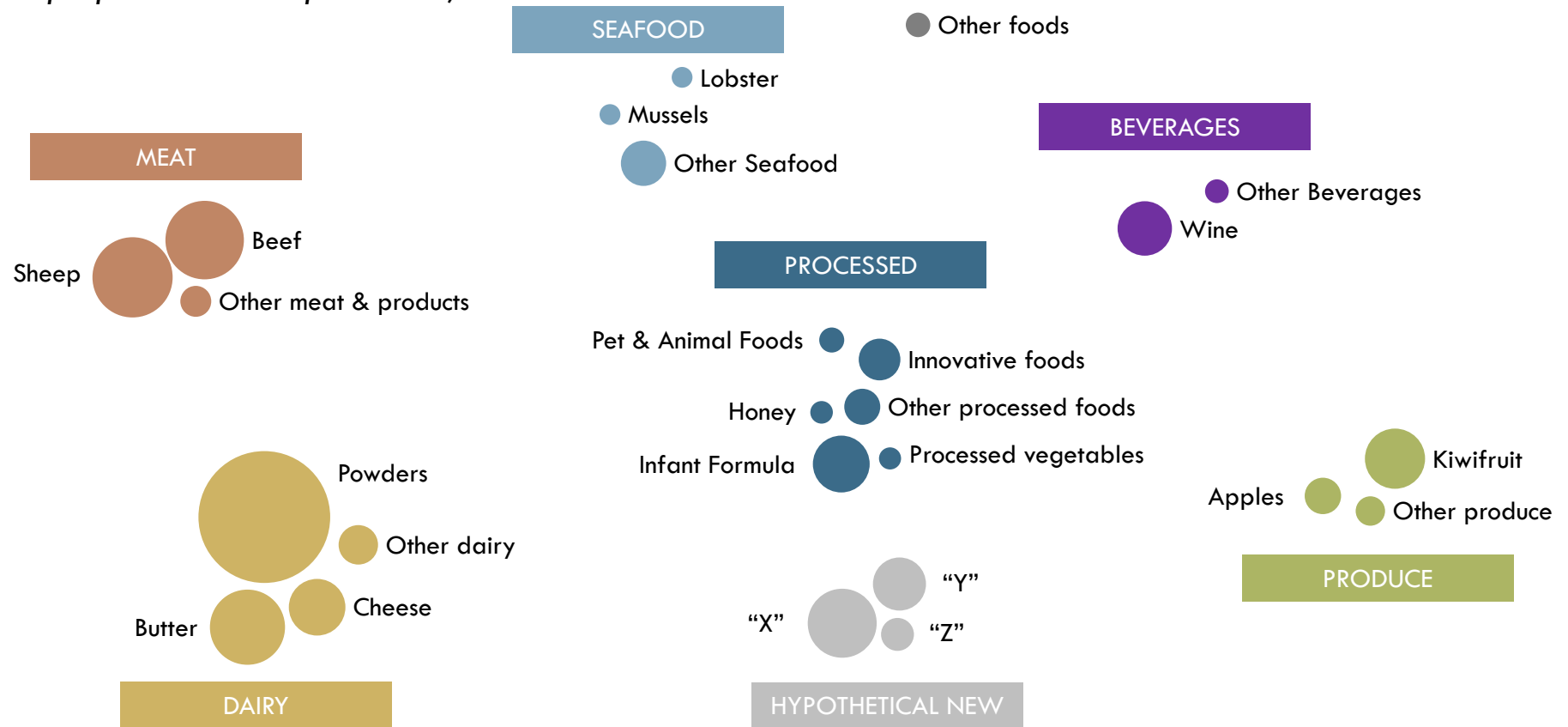
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*New Zealand has a range of existing F&B export “platforms”\*, as well as the potential to expand into new categories*

## NZ 2019 F&B EXPORT VALUE ORGANISED INTO CATEGORIES/PLATFORMS

*Area proportional to export value; 2019*



\* In the food/FMCG business, a “platform” is a group of skills, capabilities, equipment and brands in a specific sector or category (e.g. Coca-Cola in “shelf-stable beverages”, Kellogg’s in breakfast cereal or Heinz in “processed vegetables”)

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*New Zealand has a range of traditional, core F&B exports*

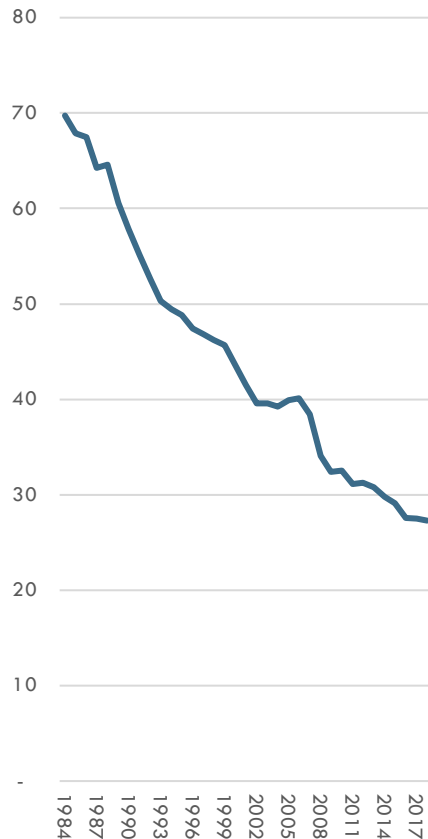




Not all traditional, core F&B production systems are growing; for example, many “low density” animal systems are shrinking

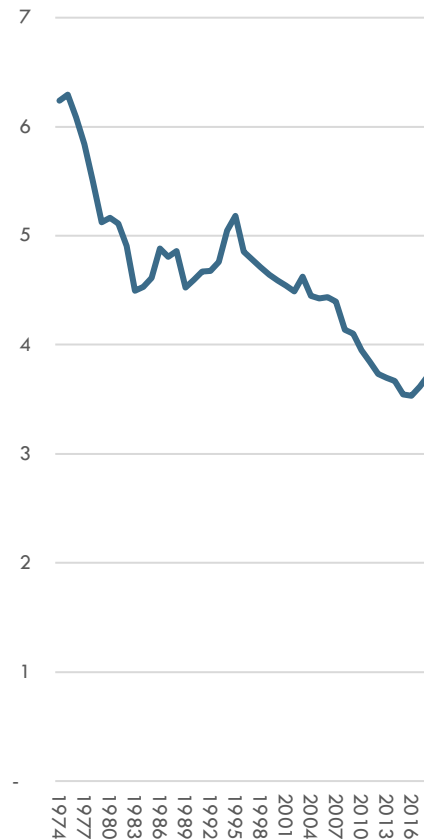
### # OF SHEEP

Head; m; 1984-2018



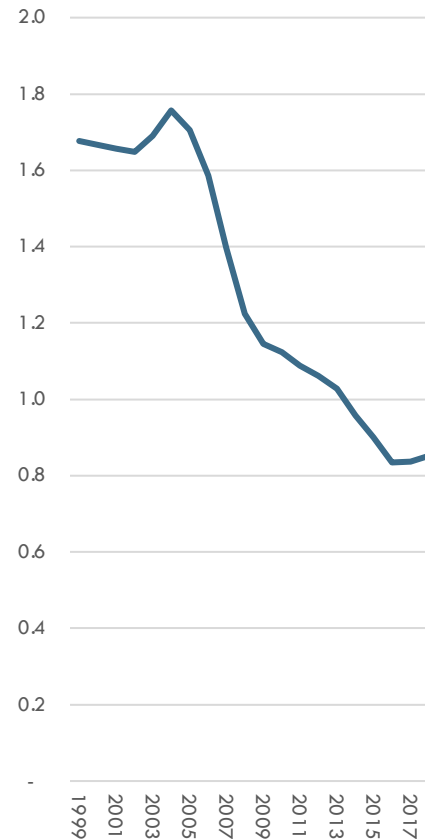
### # OF BEEF CATTLE

Head; m; 1974-2018



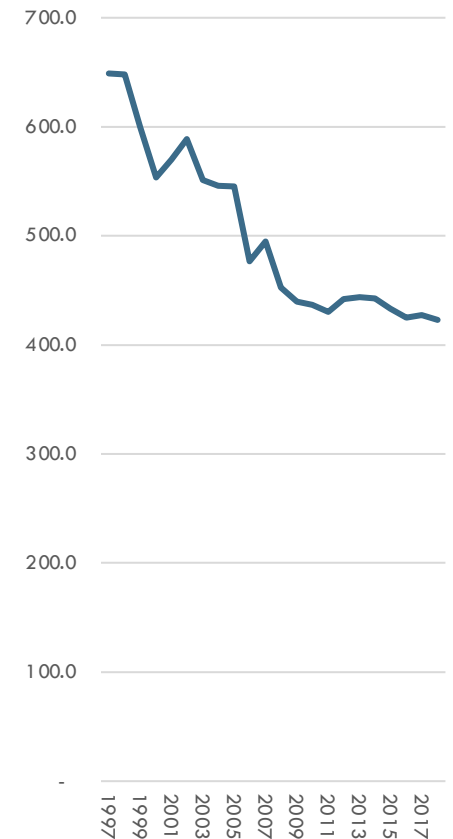
### # OF DEER

Head; m; 1999-2018



### FISH CAPTURE

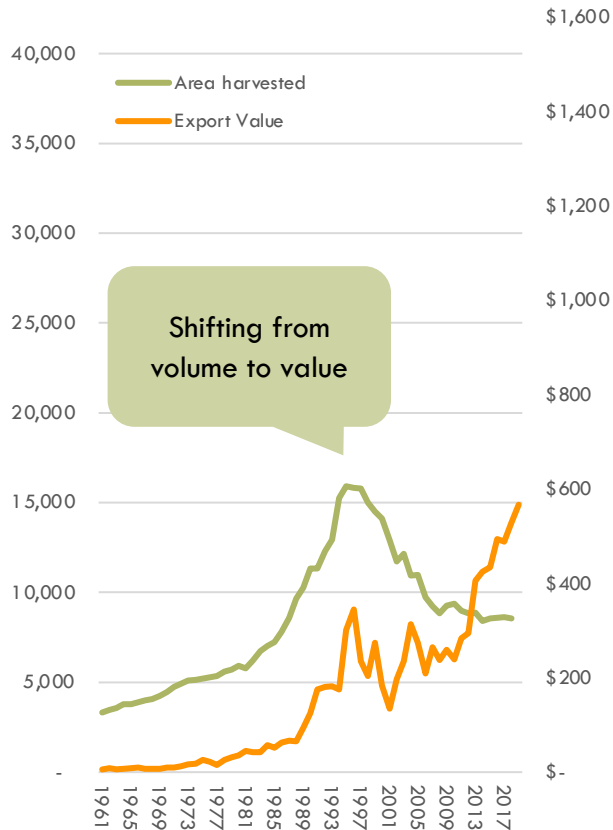
Tonnes; 000; 1997-2017



# Others are growing value, but not always production area

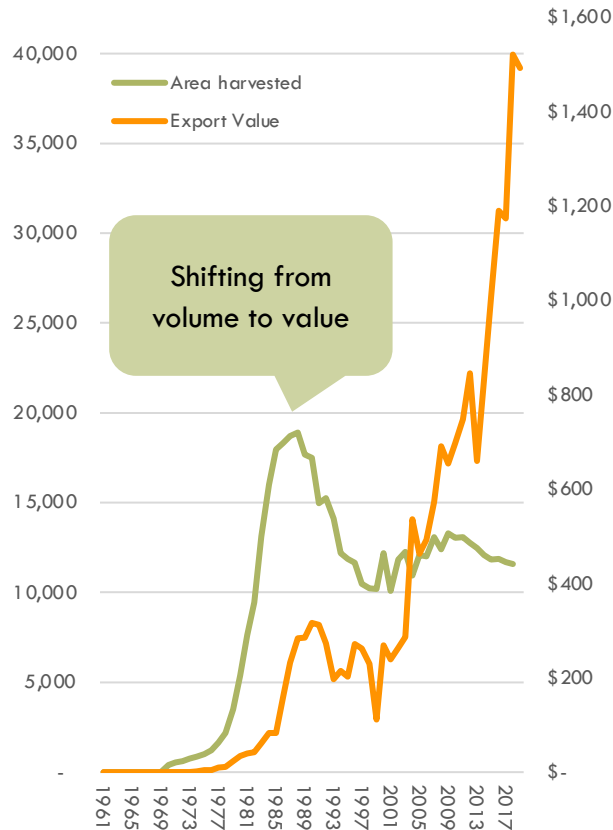
## NZ APPLES

Ha vs. export US\$m; 1961-2019



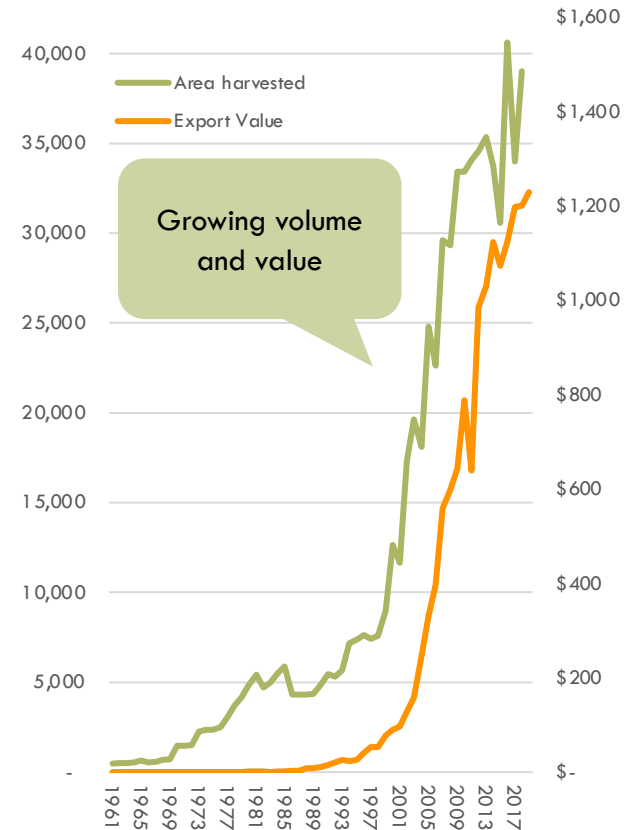
## NZ KIWIFRUIT

Ha vs. export US\$m; 1961-2019



## NZ WINE GRAPES

Ha vs. export US\$m; 1961-2019



*New Zealand has three broad high level strategic directions to expand and build F&B exports beyond traditional core products*

STRAWMAN  
FOR DISCUSSION

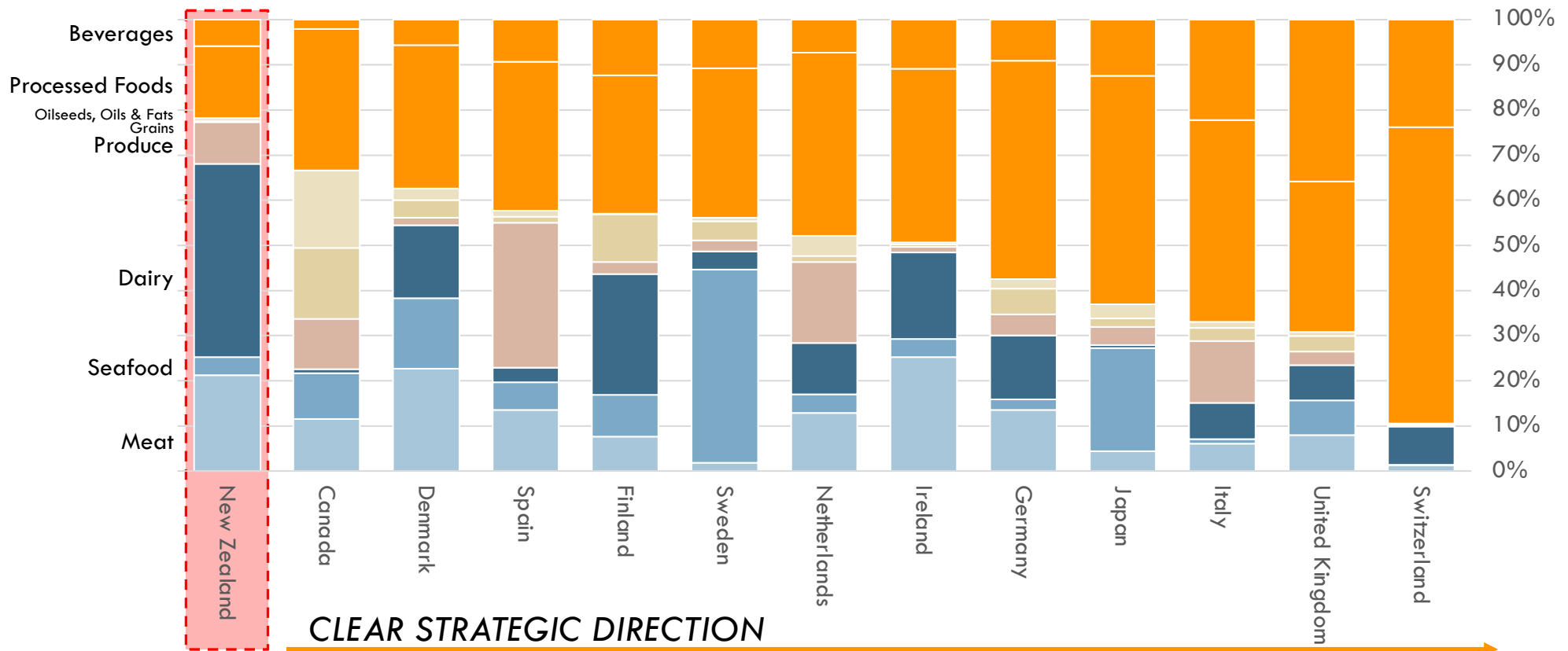


# (1) New Zealand can process more of existing large export ingredients into finished consumer ready foods



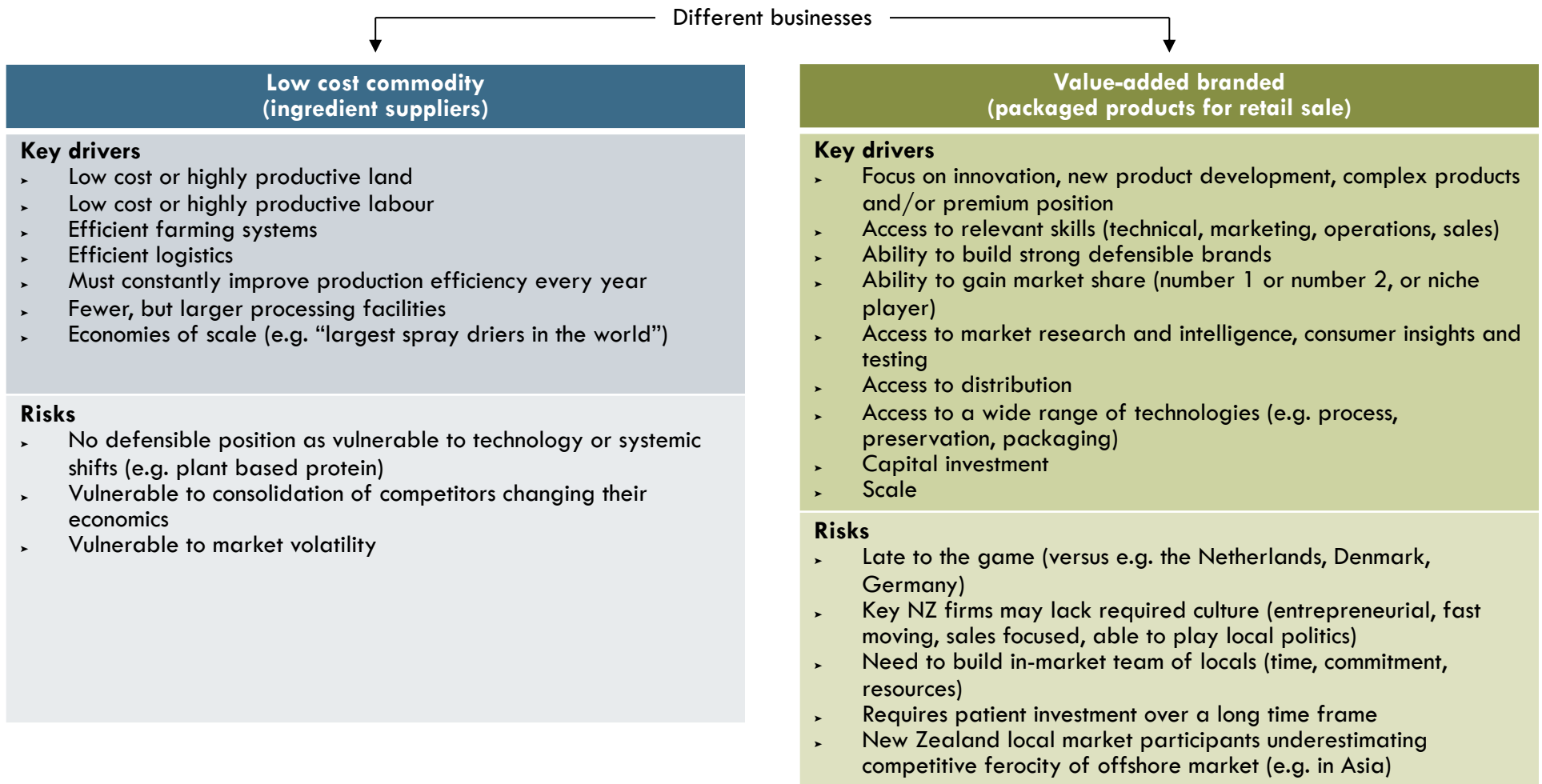
# New Zealand has a clear strategic direction from low value-added, unprocessed ingredients to value-added, branded goods

AGRIFOOD EXPORTS VALUE SHARE BY SEGMENT: NZ VS OTHER RICH COUNTRIES  
% of value; 2017



CLEAR STRATEGIC DIRECTION

# Transitioning to high value-added requires different skill-sets and capabilities



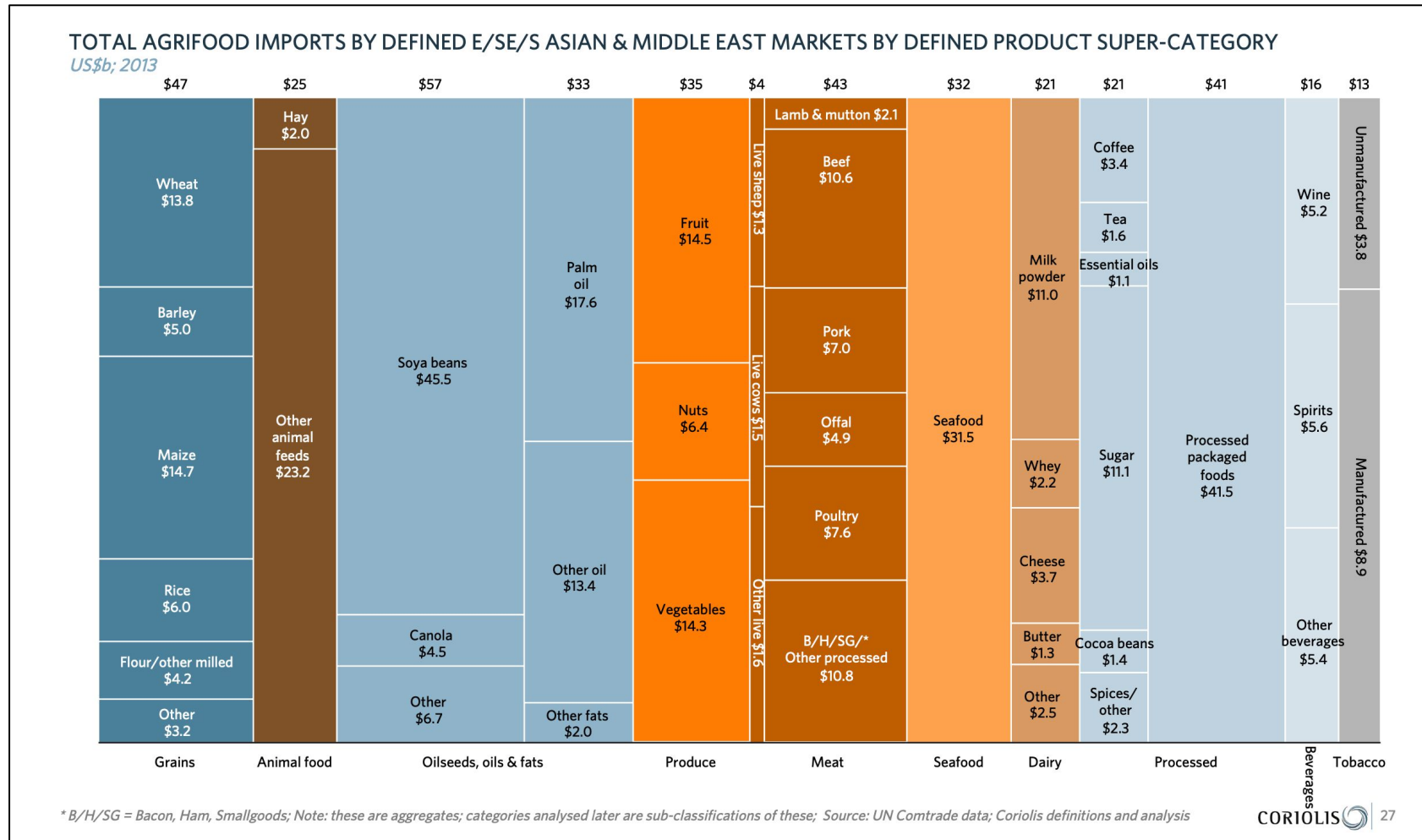
## (2) New Zealand can nurture further growth in existing small and emerging products

### NEW ZEALAND EXPORT VALUE IN 2018 IN US\$m



**TOTAL LISTED HERE US\$3.3b**

### (3) New Zealand can develop all new platforms to meet Asian demand





# Asia wants four broad classes of products



## RAW MATERIALS

Raw materials for its own wet markets, farms & factories

- Soya beans
- Wheat
- Maize
- Barley
- Soya bean oilcake
- Canola seeds
- Grain sorghum
- Brewing dregs
- Lucerne hay
- Barley
- Beet-pulp waste
- Dried peas
- Soya bean oil/flour
- Canola oil
- Beef
- Chicken
- Pork
- Milk powder
- Mozzarella cheese
- Cheddar cheese
- Butter
- Whey
- Lactose
- Milk albumins
- Sheep
- Malt, not roasted
- Fish fillets, frozen
- etc.



## DISTINCTIVE PRODUCTS

Products it cannot or does not produce in quantity

- Atlantic salmon
- Clawed lobster (*Homarus sp.*)
- Rock lobster (*Jasus sp.*)
- Some crab species
- Trout
- Cod
- Almonds
- Walnuts
- Pistachio nuts
- etc.



## COUNTER-SEASONAL

Premium, fresh counter-seasonal produce

- Cherries
- Kiwifruit
- Fresh grapes
- Blueberries
- Mandarins
- Apples
- Avocados
- Some migratory fish species
- etc.



## STATUS/PROVENANCE

Branded, status products with provenance

- Wine
- Champagne
- Brandy/Cognac
- Whiskey
- Virgin olive oil
- Mineral water
- Beer
- Infant formula
- Chocolate bars
- Chocolate, assorted
- Sweet biscuits
- etc.

*All of our past research strongly suggests firms should focus here for defensible, profitable, long-term business*

# Development of a new industry takes time; there is a long gestation period before material growth occurs

## Path dependence (or history matters)

### Economies develop specialisations

Path dependence is the fact that the way the economy has developed over time through private investment and government policy, places constraints on the way the economy can develop in the future. To use an analogy, a lawyer with deep knowledge in the practice of commercial law is not easily going to be able to switch to practicing successfully as a criminal defense lawyer. They are different competencies.

For 120 years New Zealand has developed world leading capabilities in the efficient production of commodities in response to strong market demand (e.g. the UK, more recently China) and the fact that commodities could be produced at scale from our natural resource base and could be transported long distances. The skill-sets and capabilities in the economy have developed in almost every respect to support this activity.

Historically, New Zealand's exporters have consisted of a few large firms exporting large quantities of a few products.

Shifting into production of different value-added products, whether it is in food or high technology products, requires the development of new capabilities, within firms and in the economy as a whole.

The future is likely to be many firms exporting smaller quantities of a wide range of products to many markets, this poses challenges for policy makers and regulatory systems.

## EXAMPLE: NZ WINE EXPORTS

US\$, m; 1901-2019

